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GOVERNMENT OF INDIA

RAILWAY DEPARTMENT

(RAILWAY BOARD)

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REPORT

BY THE

RAILWAY BOARD

ON

INDIAN RAILWAYS

FOR

1936-37

Volume I

DELHI: MANAGER OF PUBLICATIONS
1937

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Map of India showing railways open and under construction on 31st March 1937	In the pocket of the back cover.

INTRODUCTORY NOTE.

1. For the information of foreign readers of this report, who are unaccustomed to the use of Indian currency and units, it may be mentioned that a lakh is one hundred thousand and a crore one hundred lakhs.

2. An anna is a 16th part of a rupee and a pie the 12th part of an anna.

3. The approximate value in English coinage of a rupee at the present rate of exchange is one shilling and six pence.

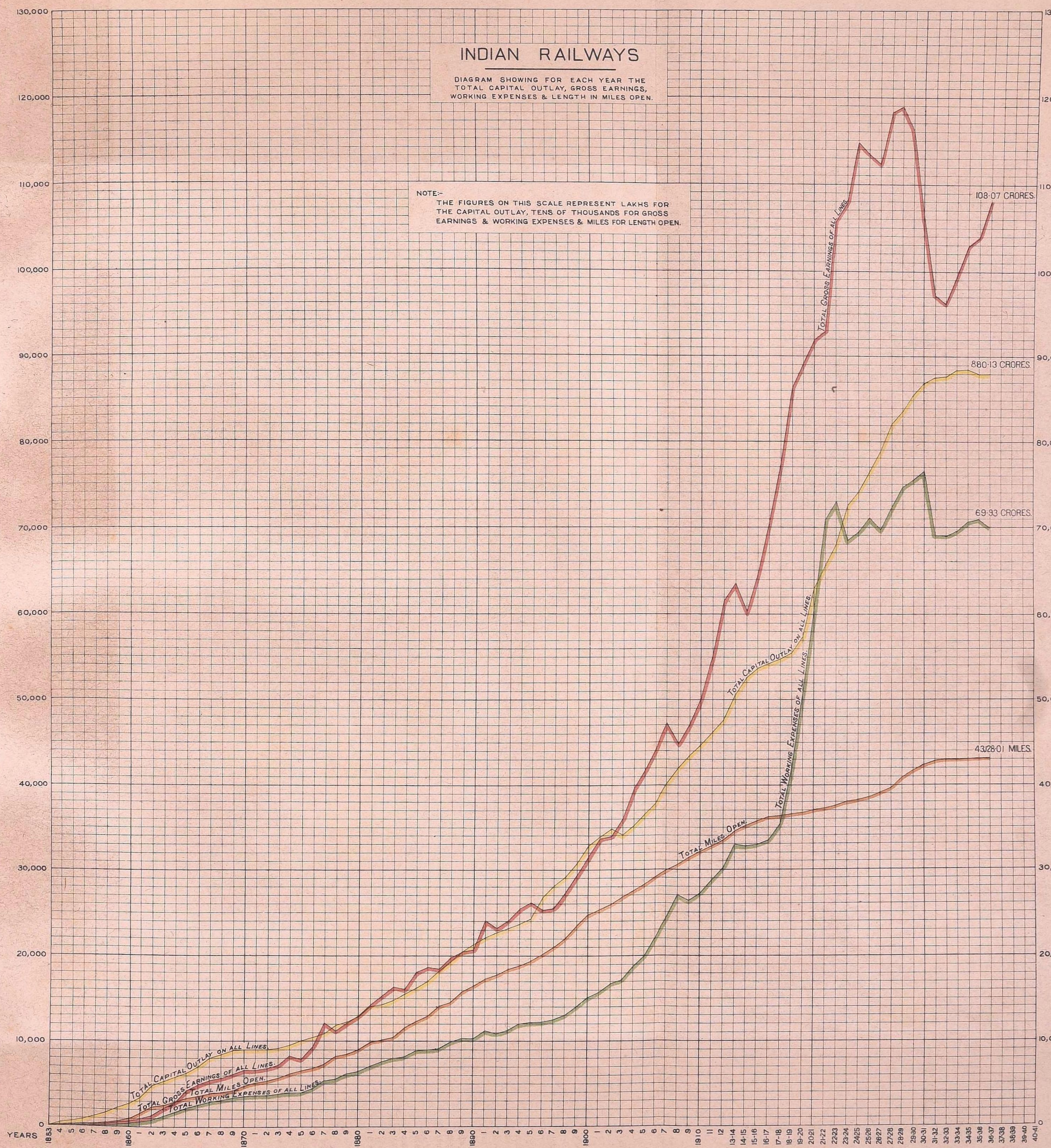
NOTE.—Indian Railway Systems have been classified under three classes for statistical purposes—

Class I—Railway with gross earnings of Rs. 50 lakhs and over a year.

,, II—Railways with gross earnings of less than Rs. 50 lakhs a year, but exceeding Rs. 10 lakhs a year.

,, III—Railways with gross earnings of Rs. 10 lakhs and under a year.

A detailed list of the railways in each class will be found in Appendix A, pages 117 to 121.



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EASTERN BENGAL RAILWAY.

Regirdering the Gorai Bridge between Kushtia and Rajbari.

CHAPTER I.

GENERAL REVIEW.

1. Introduction.—The Railway Board's annual report on Indian Railways for the period from 1st April 1936 to 31st March 1937 is published in two volumes. Volume I reviews the general administration and the financial results of the railways with special comments upon items of outstanding interest that occurred during the year. It also covers references to new construction of railway lines, improvements in and additions to rolling stock, introduction of improved methods of operation, the recruitment, training and welfare of staff, and other matters having an important bearing on railway management and operation. Volume II is a compilation of financial and statistical summaries and statements covering the main heads of the capital and revenue accounts and embraces the complete range of railway working.

2. Monsoon conditions and agricultural results.—India is primarily an agricultural country and the well-being of the whole community is greatly dependent on the rainfall. The principal rains occur during the south-west monsoon which usually extends from early June to September. During 1936, this monsoon started a little earlier than usual and though there were no pronounced breaks, the rainfall was unevenly distributed. Averaged over the plains of India, the total rainfall during the monsoon period was 4 per cent. in excess of the normal, but was in excess in the Gangetic plain and in defect in the Deccan and Gujarat. Taking the year as a whole, the rainfall was within 20 per cent. of the normal all over the country, except in the United Provinces, the Central Provinces, Bihar, Orissa and in the south-west Punjab and north Madras Coast where it was excessive and in Gujarat and the Deccan where it was in defect.

From the agricultural point of view, the season on the whole must be regarded as good. Compared with the previous year, the outturn of rice recorded an increase of 17 per cent., though the crop in Burma was defective. Sugar cane showed an increase of 14 per cent., due mainly, however, to an increase in the area under cultivation. Jute increased by 21 per cent. and cotton by 6 per cent. The principal oilseeds, *e.g.*, groundnut, sesamum and castor seed, increased by 24, 4 and 4 per cent. respectively, and the winter oilseeds of rape and mustard recorded an increase of 6 per cent. Linseed outturn declined by 9 per cent., and wheat also recorded a decrease of 3 per cent. compared with the preceding year.

3. The gross traffic receipts of State-owned Railways for the year amounted to Rs. 95·48 as against Rs. 90·65 crores in 1935-36 or an increase of Rs. 4·83 crores. After meeting all charges, including depreciation and interest on capital at charge, the net result of the year's working was a gain of Rs. 121 lakhs. This amount was added to the Depreciation Reserve Fund in part payment of the amount withdrawn from the fund to meet deficits in the working of railways during previous years.

Goods traffic was mainly responsible for the increase, the goods earnings having risen from Rs. 64·69 in 1935-36 to Rs. 69·79 crores, though the tonnage carried decreased from 86·9 millions in 1935-36 to 86·3 millions in 1936-37. On the other hand the net ton miles increased from 20,554 millions in 1935-36 to 21,435 millions in 1936-37—an increase in the average lead per ton per mile from 236 to 248 miles. A point of particular interest is that during 1936-37 the goods traffic was better by Rs. 97 lakhs than in 1929-30, the last year in which Railways earned a surplus.

Passenger earnings showed a slight fall of Rs. 23 lakhs, as compared with the previous year; the totals being Rs. 30·56 crores in 1935-36 and Rs. 30·33 crores in 1936-37. The number of passengers carried was 509·9 millions in 1936-37 as compared with 503·7 millions in 1935-36—an increase of over six millions. The passenger miles also increased from 18,154 millions in 1935-36 to 18,270 millions in 1936-37.

4. Mileage.—Thirteen new miles of line, entirely located within Indian States and constructed at their cost, were opened during the year. Owing to re-alignment of certain existing sections, however, the net addition to the mileage of railways was only ten. The total route mileage at the end of the year was 43,128; in addition 63 miles were under construction.

5. Railways and the Legislature.—Judging from the number of questions asked in the Council of State and the Legislative Assembly, it would appear that the members of the Indian Legislature continue, as in the past, to take a keen interest in the working of the Railway Department. Out of a total number of 3,003 questions asked in both the Houses during the year 1936-37, 913 or 30 per cent. related purely to railway matters as compared with 31 per cent. during the previous year.

In addition to this large number of questions, four resolutions also came up for discussion in the Council of State. The Indian Railways (Amendment) Bill was also discussed at great length during the Simla Session—1936, and a resolution was adopted for the Bill to be circulated for the purpose of eliciting opinion thereon. The Bill was further discussed in the winter session of 1937 and referred to a Select Committee

(i) *New Railway Station at Hardwar.*—A resolution was moved in the Council of State on the 30th September 1936 recommending to the Governor General in Council that provision should be made for the building of a new railway station with all modern conveniences for passengers at Hardwar. Government agreed that the facilities at Hardwar were not quite what they should be, and stated that work on improvements had been started. In drawing up these plans the East Indian Railway had had the advantage of a conference with Pandit Hirday Nath Kunzru, President of the Servants of India Society. The actual number of passengers at Hardwar was 1,200 a day or 438,000 a year. During the Kumbh *mela* of 1927 the number carried to Hardwar, including Rikhikesh, was 356,473, and from Hardwar 335,728. In view of these figures Government considered that the expenditure required to provide a modern railway station straightaway was not justified, and suggested that the resolution be amended to read as follows :—

> " This Council recommends to the Governor General in Council to make provision for the improvement of Hardwar railway station to enable it to deal efficiently with the large pilgrim traffic offering."

The resolution as amended was adopted.

(ii) *Catering arrangements on the Bengal Nagpur Railway.*—On the 12th March 1937 the Hon'ble Mr. Sitakanta Mahapatra moved the following Resolution in the Council of State :—

> " That this Council recommends to the Governor General in Council that a committee consisting of Railway officials and others not connected with the Railway Administration be appointed to enquire as to how far the present policy and arrangements of the Bengal Nagpur Railway Company for catering is responsible for the supply of bad food at high prices at the railway platforms and to suggest ways and means to remove these grievances."

In the course of his speech, the Mover alleged that Indian food sold on the Bengal Nagpur Railway platforms was unwholesome and the prices charged were high; that the license fees for Indian catering were high; that the Bengal Nagpur Railway Catering Department competed with private enterprise in selling wines, spirits, provisions, etc., to their staff; that the Railway Hotels were run at a loss and were subsidised by revenue derived from Indian catering. He asked for the appointment of a Committee and was supported by five other members of the Council of State.

The Hon'ble Sir Guthrie Russell, Chief Commissioner of Railways, in opposing the Resolution quoted figures supplied by the Bengal Nagpur Railway which showed that the allegations made against that Railway's Catering Department were not correct, and on his giving an undertaking to enquire into the allegation of high prices charged for Indian food and to send a copy

of the debate to the Agent for his opinion on any suggestions made to improve matters, the resolution was withdrawn.

(iii) *Taking over the Bengal Nagpur Railway under State management.*—On the 15th March 1937, the Hon'ble Mr. Sitakanta Mahapatra moved a resolution in the Council of State regarding the taking over of the Bengal Nagpur Railway under State management. The Mover said that under the original provision of the contract with the Bengal Nagpur Railway Company, the Secretary of State had the power to terminate the contract and take over the railway under State management on the 31st December 1913, but this provision was revised in 1912 with the result that it was impossible to terminate it at any date before 31st December 1950.

In opposing the resolution it was explained by Government that, as regards the revision of the contract and extending it to 1950, there was no reason to doubt that it was done for what were considered good and sufficient reasons at that time, and that, with regard to the taking over of the Railway under State management it was not possible to do anything, as the Hon'ble the Mover himself had stated, before 1950, unless by private negotiations which would not pay Government. The resolution was withdrawn.

(iv) *Enquiries into the working of the Bengal Nagpur Railway Administration.*—A resolution was moved on the 17th March 1937 in the Council of State by the Hon'ble Mr. Sitakanta Mahapatra regarding the appointment of a Committee to make detailed enquiries into the working of the Bengal Nagpur Railway Administration with a view to finding out the causes of deficits year after year and to suggest ways and means to improve the position.

The resolution was supported mostly on allegations of inefficiency in comparison with the position on other railways. It was opposed by Government on the grounds that the normal measure of efficiency would be the operating ratio which compared favourably with those obtaining on other railways. It was also explained that the Bengal Nagpur Railway was worked under certain great disadvantages, *viz.*, that it had very severe gradients which affected working expenses, that it had small high-rated traffic and the bulk of the main traffic consisted of coal, manganese, iron ore, dolomite, limestone, etc., which were carried at the lowest possible rates, with the result that the earnings of the Railway were low while the working expenses were not susceptible of reduction proportionately. The resolution was negatived.

6. Railway Budget.—The Railway Budget for 1937-38 was discussed in detail with the Standing Finance Committee for Railways at their meeting held on the 22nd and 30th January 1937. It was presented to both Houses of the Legislature on the 16th February 1937. The general discussion on the budget took place in the Assembly on the 18th and in the Council of State on the 20th February 1937. The voting on the demands for grants in the Assembly occupied four days, *viz.*, 23rd to 26th February 1937.

During the general discussion in the Assembly a very considerable variety of subjects came under review. Some of them, namely, present and future position of the Anglo-Indian community employed on railways, divisional system, railway rating policy, experiment in respect of air-conditioned coaches, manufacture of locomotives in India, revision of the Separation Convention, composition of the Wedgwood Committee and the payment to Burma of their share of the accumulation in the Railway Depreciation Reserve Fund were of importance and interest.

Of the motions for reductions made during the debates on demands for grants seven token cuts were carried, one negatived and one withdrawn. The motions carried related to the control of expenditure, exclusion of Indians from the Wedgwood Committee, the taking over of the Bengal and North-Western, Rohilkund and Kumaon and Madras and Southern Mahratta Railways under State-management, manufacture of locomotives in India, grievances of third class passengers, Indianization of railway services and

rail-road competition. The motion negatived was in respect of the general policy of railway administration and that withdrawn related to the paucity of Muslims in the railway services. Three demands (*viz.*, 6-B.—Working expenses—Maintenance and Supply of locomotive power, 6-C.—Working expenses—Maintenance of Carriage and Wagon Stock and 6-D.—Working expenses—Maintenance of Ferry Steamers and Harbours) were rejected on division after the maximum limit of time for discussion had been reached on the last day allotted for the Budget.

7. Standing Finance Committee for Railways.—The Committee met six times during the year. Besides scrutinising the proposals relating to the capital and revenue expenditure to be incurred during 1937-38 and examining the demands for grants for that year prior to their being placed before the Legislative Assembly, the Committee considered proposals regarding the revision of rules relating to allocation of expenditure. They also examined the proposals to purchase the Bezwada Masulipatam Railway and to construct the Sind Right Bank Feeders Railway. The list of important items of standard designs prescribed by the Central Standards Office also received their attention.

8. Extension of contract of the Madras and Southern Mahratta Railway.—Under the terms of the contract with the Madras and Southern Mahratta Railway Company, the Secretary of State had the option to determine the contract on the 31st December 1937, or on the 31st December in any succeeding fifth year by giving to the Company twelve months' previous notice. The question whether this option should be exercised (in which case necessary notice had to be given by the 31st December 1936) was fully considered and it was decided not to exercise the option on the 31st December 1937. The contract has been extended for a period of eight years from the 1st January 1938 on terms much more favourable to Government than the arrangement previously in force. The extended contract of the Madras and Southern Mahratta Railway will now expire at the same time as the contract with the South Indian Railway Company.

9. Extension of contracts of the Bengal and North-Western and Rohilkund and Kumaon Railways.—Under the terms of the contracts with the Bengal and North-Western and Rohilkund and Kumaon Railway Companies, the Secretary of State had the option to determine the contracts and to acquire the Company-owned section of the two railways either on the 31st December 1937 or on the 31st December 1942 on giving twelve months' previous notice. The question whether this option should be exercised on the 31st December 1937 was fully considered and it was decided not to exercise the option on that date. The contracts with the Companies will automatically continue for five years on the present terms and conditions and a fresh option will be available on the 31st December 1942.

10. Meetings with Agents of Railways and Local Governments.—During the year under review, the Railway Board held two meetings with the Agents of the principal railways. The first meeting was held in New Delhi on the 17th November 1936 and the Agents who had gathered there were subsequently able to meet the members of the Railway Enquiry Committee who thus had an opportunity of holding an informal discussion with them. The second meeting of the Railway Board with the Agents was on the 18th March 1937. Among the subjects discussed at these meetings were :—

(i) Provision of insulated vans on railways for the transport of refrigerated and frozen foods;

(ii) Desirability of State Railways operating experimental road passenger services;

(iii) Direct recruitment of non-gazetted staff to the intermediate grades;

(iv) Third class mail fares; and

(v) Road-rail competition.

Several visits were paid by the members of the Railway Board to the headquarters of the various railway administrations and local Governments. Copies of their tour programmes were sent in advance to the Press, local Governments and important mercantile associations, in order to give the latter an opportunity to place their views on railway problems before the Board.

11. Central Advisory Council for Railways.—Meetings of the Central Advisory Council for Railways were held at Simla on the 3rd and 8th October 1936. The following subjects were discussed at these meetings with the results shown against each :—

Subject.	Result of discussion.
(A) *Catering and vending contracts*—	
(i) Rent for refreshment rooms . .	(i) It was the general view that the principles governing the rental to be charged for first and second class and Indian refreshment rooms on each railway should be uniform and that these rents should be nominal.
(ii) Rent for other premises . .	(ii) It was agreed that suitable rent might be charged for premises occupied as residences, for storage or for any purpose other than actual service to the public.
(iii) Auction of salesman's contracts .	(iii) It was agreed that the system of auctioning contracts for the sale of articles other than necessaries at railway stations, such as is in the operation of the Moradabad Division of the East Indian Railway, might be left for regulation by the Railway Administrations, who would regulate the system with reference to local conditions operating on the different sections on the system. It would be open to the Local Advisory Committees to bring to the notice of the Railway Administration concerned any matters in this connection which would require consideration.
(iv) License fees charged from stall-holders.	(iv) The general view of the Council was that stall-holders should be charged a reasonable licensing fee whether their stall is on the platform or in the third class waiting hall, provided that in the former case the stall-holder sent his man on to the platform to sell. In the case of individual hawkers who are not connected with any shops or stalls on the railway premises no fee need be charged. These are, however, general observations which may be adjusted to local conditions by individual railway administrations. The Council also expressed the view that at no station should any vendor or hawker be permitted to come on to the platform unless he holds a licence permitting him to do so.
(v) Charges for electric current or water.	(v) The Council were agreed that where service in the shape of supply of current or of water is rendered to a contractor or to a shopkeeper or stall-holder, a reasonable charge may be made to cover the cost of the service.

Subject.	Result of discussion.
(A) *Catering and vending contracts*—contd.	
(vi) Municipal charges and taxes .	(vi) The Council were agreed that where a municipal or other charge or tax is referable to premises occupied by a contractor, shop-keeper or stall-holder, the railway administration shall be at liberty to recover such charge or tax from the lessee or occupier of such premises.
(vii) Exhibition of price lists . .	(vii) The Council agreed that the suggestion made that price lists be fixed in consultation with Local Civil Authorities would meet the requirements of the case, provided the Local Advisory Committee were also consulted.
(viii) Letting of contracts to professional caterers; notice to be given of termination and letting of contracts to local men.	(viii) The Council accepted the following suggestions:— (1) that contracts for both station vending and refreshment rooms should be given only to professional men or firms who specialise in catering, and should ordinarily be terminable at one month's notice, except in the case of the more important contracts necessitating special organization when not more than six months' notice might be necessary. (2) that contracts should be given to men locally available, except in those cases in which it is believed that a more satisfactory service could be given by including several stations in one contract area, subject to the following provisos:— (*a*) that in the case of refreshment rooms, at least three months' notice for terminating the contract should be required and that in the case of more important contracts a period of six months' notice, as suggested, might be requisite; (*b*) care should be taken that when a contract is given to anybody who is not a local firm or individual, the contractor is a *bonâ fide* person who himself or whose firm would carry on the business of the contract. Subletting of these contracts should be prohibited and if possible a clause prohibiting such subletting should be entered in the contracts. It was further suggested that where local arrangements are not possible and several stations have to be grouped together, the area included in this group should not be too large. In such cases it is expected that it would be possible to make local arrangements within the area of the group.

Subject.	Result of discussion.
(A) *Catering and vending contracts*—contd. (ix) Periods and terms of contracts for sale of ice and aerated waters.	(ix) The majority of the Council were of the view that the contract for the sale of ice and aerated waters in trains should be for a period of one year but that arrangements for the following year should be concluded at least 6 months before the beginning of the year or the season as the case may be. A considerable section of the Council, however, were of the view that a period of one year was too short for such contracts and that the minimum period should be 3 years. The Council were also of the view that over a section to which any of these contractors related, station vendors should not be permitted to sell ice and aerated waters on the platforms but that the price for aerated waters as well as for the supply of ice at the stations by the contractor should be specially looked into, as conditions applying to supply at the stations are different from supply in the trains and there should be as little difference as possible between the prices charged at the stations and outside prices. The prohibition against station vendors supplying ice and aerated waters would naturally be operative only during the period of the contract for the supply of ice and aerated waters in the trains. If there is any off season on a particular section, the prohibition would not apply during the off season. It was also suggested that on certain Railways the prices of aerated waters and ice supplied in the trains were higher than conditions warranted and that this question should be looked into.
(x) System of medical inspection .	(x) The Council welcomed the proposal that Railway Medical Officers, when on tour, should make it a point of inspecting foodstuffs sold on platforms and in vendors' shops and in each case report the result to the District or Divisional Officer concerned. But some members expressed a doubt whether the inspection would be effective and expressed the hope that Railway Medical Officers would regard this part of their duties as extremely important, having regard to the very large number of persons whose welfare might be affected by any laxity in this respect. The Council desired that the inspection should extend not only to foodstuffs sold on platforms and in vendors' shops but also that served in refreshment rooms. It was further suggested that during the prevalence of an epidemic, or when there was a threat of

Subject.	Result of discussion.
(A) *Catering and vending contracts*—concld.	outbreak of an epidemic, Railway Medical Officers should be on the alert to prevent the sale of infected foodstuffs. It was also suggested that the local Public Health Officer should have access to Railway stations for the purpose of inspecting foodstuffs if he cared to do so.
(xi) Advertising catering contracts .	(xi) It was suggested that the bigger contracts should ordinarily be advertised. In this connection Railway Administrations might be asked to send their views to the Railway Board as to the extent to which this is practicable.
(B) *Local Advisory Committees*—	
(i) Representation of peasant associations on local advisory committees.	(i) It was suggested that at least in those provinces where there were well organised peasant associations, representation on the local advisory committees should be given to peasant associations. It was desirable that such representation should be in addition to the representation given to the local Legislative Councils, but if in the last resort no other means of affording representation to peasant associations was possible except by reduction of the number elected by local Legislative Councils, that number might be reduced in order to afford representation to peasant associations. Mr. Giri was asked by the Chairman to submit a note on the constitution of peasant organisations in provinces where it was considered desirable that such associations should have representation on local advisory committees.
(ii) Members of the Central Advisory Council should be *ex-officio* members of Local Advisory Committees.	(ii) It was pointed out that the proposal was impracticable but the Chairman said that he was willing to explore the possibility of the Railway Board nominating one member to each of the local advisory committees and that members to be selected from among the members of the Central Advisory Council, and that if some such scheme appeared to be feasible, it might then be possible to nominate a majority of the members of the Central Advisory Council on different local Advisory Committees.
(C) *Refunds of overcharges to senders and consignees of goods.*	It was pointed out that rules already existed making it incumbent on Railways to refund overcharges exceeding Rs. 5 without application and the Railway Board undertook to have this rule brought to the notice of all Railway Administrations and to issue instructions that such refunds should be made as expeditiously as possible.

12. Local Railway Advisory Committees.—Local Advisory Committees on Railways have continued to function on all Class I Railways (except the Jodhpur Railway). They constitute a valuable link between Railway Administrations and the community affording opportunities for discussion on matters of interest and importance to the travelling public and traders.

During the year eighty meetings of the various Committees were held. Particulars of the subjects discussed and the action which the Railway Administrations concerned decided to take thereon, are embodied in pamphlets published quarterly by the Railway Board. The following is a list of some of the more important matters discussed :—

(*a*) Reduction of rates (for particular commodities) and fares—
- (i) Introduction of mileage coupon tickets.
- (ii) Holiday concessions.
- (iii) Introduction of rail-*cum*-bus tickets.

(*b*) Booking arrangements—
- (i) Opening of booking offices.
- (ii) Improving methods of approach to windows to prevent crowding.

(*c*) Improvements in Passenger Stock—
- (i) Provision of fans in lower class carriages.
- (ii) Lavatories in suburban trains.
- (iii) Provision of ice containers.

(*d*) Train Timings—
- (i) Introduction of express goods service.
- (ii) Acceleration in the speed of trains.

(*e*) Amenities for Passengers—
- (i) Charges for meals.
- (ii) Reservation of seats in intermediate and third class carriages.
- (iii) Provision of Indian Restaurant Cars.
- (iv) Supply of drinking water for passengers.
- (v) Medical aid for passengers.

(*f*) General—
- (i) Arrangements for dealing with traffic at festivals.
- (ii) Eradication of the beggar nuisance at stations.
- (iii) Payment of illegal gratification to railway employees.
- (iv) Steps to improve railway earnings.
- (v) Rail-Road competition.
- (vi) Protection of women passengers.
- (vii) Provision of additional tourist cars for third class passengers.
- (viii) Overcrowding in trains.

13. Railway Rates Advisory Committee.—Sir Zahid Suhrawardy continued as the President of the Committee. Mr. E. A. Sims, the Railway Member, having proceeded on leave from the 1st December 1936, was succeeded by Rai Bahadur P. C. Bose from the Eastern Bengal Railway.

Orders were passed by the Government on the following cases during the year :—

(i) A complaint from Messrs. Martin and Company, Calcutta, and nine other colliery owners against the East Indian Railway alleging that—

(*a*) the terminal charge on coal levied on traffic from the Raniganj coalfields was unreasonable;

(*b*) the freight charged for coal from some collieries was also unreasonable.

(ii) A complaint from Mr. Jeetmal Kanaudia of Cawnpore, against the Great Indian Peninsula Railway, alleging that the rates for myrobalan from Jubbulpore to Cawnpore and *viâ* Cawnpore were unreasonable.

In the first case, the Committee found that the levy of a terminal charge was not unjustified and as the question of the quantum of the charge was not in dispute, the Committee did not feel called upon to report on its reasonableness. The second point, *i.e.*, that the freight charged for coal was unreasonable was not pressed by the applicants.

In the second case, the Committee found that the rate for myrobalan from Jubbulpore to Cawnpore and *viâ* Cawnpore was unreasonable and suggested a suitable adjustment of the same, subject to certain conditions.

In both cases the recommendations of the Committee were accepted by Government.

At the close of the year, the following cases were awaiting a decision as to whether they should be referred to the Railway Rates Advisory Committee for investigation :—

(i) A joint complaint from Messrs. Mackinnon Mackenzie and Company, Managing Agents, the British India Steam Navigation Company, Limited, Messrs. Turner Morrison and Company, Limited, Managing Agents, Asiatic Steam Navigation Company, Limited and the Scindia Steam Navigation Company, Limited, against the Bengal Nagpur and East Indian Railways, protesting against the withdrawal of the refund of 12½ per cent. surcharge on bunker coal consigned to Calcutta.

(ii) A complaint from Messrs. D. N. Sircar, S. K. Dass, Howrah, against the Bengal Nagpur Railway, alleging that the Railway was showing undue preference to the Tata Iron and Steel Company, Limited, Tatanagar, in regard to rates for Iron and Steel, Division B, by granting them a rebate off the published freight charges.

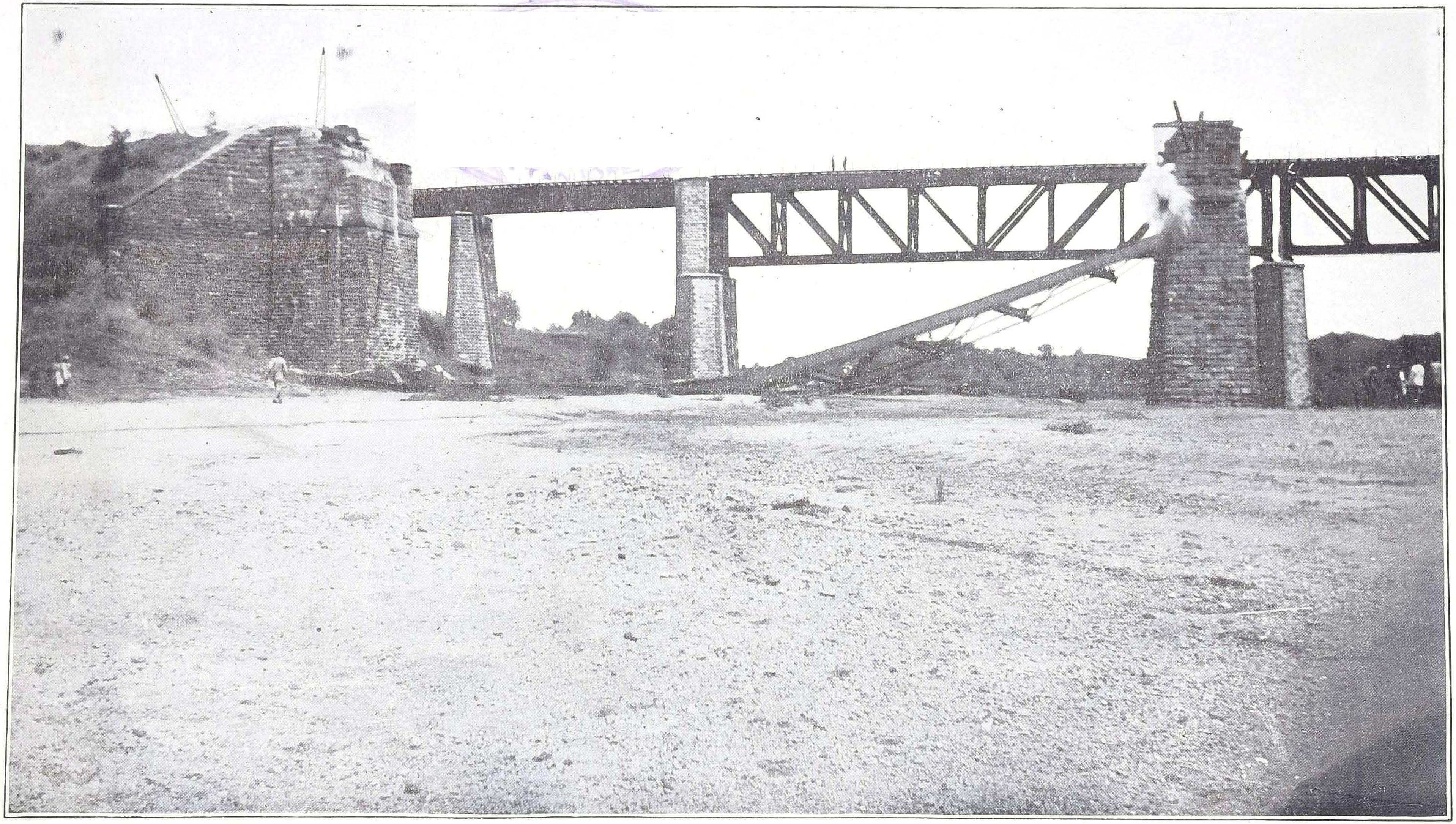
(iii) The question as to whether the rating of coal by the Great Indian Peninsula Railway *ex*-stations in the Central Provinces coalfields for destinations between 251 to 400 miles distant causes undue or unreasonable preference or advantage within the meaning of Section 42 (2) of the Indian Railways Act (IX of 1890).

A representation was also received from the Indian Cotton Oil Company, Navsari, complaining against the freight rates charged by the Bombay, Baroda and Central India Railway and asking for a reference of the case to the Railway Rates Advisory Committee. This case was, however, not referred to the Committee as a compromise was arrived at between the parties.

14. Job Analysis.—Job analysis investigations were continued on most of the Railways during the year under review in accordance with the recommendations made by Mr. Pope in 1933 and 1934. The table below shows the economies effected on each of the more important Railways and the cost of the Job analysis organisation for the four years 1933-34, 1934-35, 1935-36 and 1936-37 :—

Railways.	1933-34.		1934-35.		1935-36.		1936-37.	
	Cost of Job analysis organisation.	Savings effected.	Cost of Job analysis organisation.	Savings effected.	Cost of Job analysis organisation.	Savings effected.	Cost of Job analysis organisation.	Savings effected.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Assam Bengal	12,825	1,31,755	8,208	12,659	1,490	*	7,065	24,146
Bengal Nagpur	..	..	..	..	17,575	13,68,493	2,617	66,330
Bombay, Baroda and Central India	58,789	3,52,862	35,300	11,41,596	3,643	2,25,682	247	8,27,666
Burma	7,500	25,871	26,615	73,352	..	77,591	..	..
Eastern Bengal	63,000	2,14,864	65,995	1,29,508	26,134	41,600	25,969	1,17,152
East Indian	77,691	7,01,128	92,884	18,14,544	1,13,541	5,82,459	93,009	5,60,700
Great Indian Peninsula	56,680	4,15,000	64,000	2,04,246	53,574	2,04,859	19,554	9,69,224
Madras and Southern Mahratta	8,750	45,220	17,632	1,14,000	4,920	2,56,000	120	1,94,852
North Western	32,000	12,66,749	46,006	12,37,376	56,729	7,22,202	40,056	33,35,092
South Indian	19,580	27,400	2,180	25,000	221	8,463	504	7,585

* Figures not available.



Dismantling an abandoned bridge on the Jubbulpore Section by throwing the girders from the top of the piers.

Till this year it has not been worth while dismantling these bridges due to the low price to be obtained for scrap iron, but now that the price has risen appreciably, a considerable sum will be realized.

15. Steps taken to improve earnings and reduce working expenses.—An endeavour is made in the following paragraphs to indicate broadly the steps which Railways have taken to improve earnings and to reduce expenses. The subject is a wide one and certain aspects of it are referred to in more detail elsewhere in this report.

(1) *Steps taken to improve earnings.*—(*a*) Cheap fares were introduced to stimulate traffic particularly in competitive areas; and special reductions in freight rates were made for parcels and goods traffic.

(*b*) The arrangements for booking traffic were improved by the organisation of street collection and delivery of parcels and goods in some of the larger towns, by the opening of additional out-agencies and the issue of rail-*cum*-road tickets.

(*c*) Research organisations were formed on certain railways to encourage the development of new traffic, to assist in development of areas and to organise special tours, etc. These organisations also watched the movement of traffic to permit of suitable action being taken to prevent diversions.

(*d*) Surprise checks were carried out to detect cases of misdeclaration and underweighment of goods, malpractices which inevitably result in a leakage of revenue.

(2) *Steps taken to reduce expenses.*—Apart from the ' job analysis ' of various activities referred to elsewhere in this report which resulted in considerable savings, the following are some other directions in which economy was sought, under the four main heads involving considerable expenditure :—

(*a*) *Staff.*—The question of reduction in the number and cost of staff continued to receive close attention. The savings resulting are included in the figures given under Job analysis. Detailed figures of the number and cost of staff will be found in Chapter VI.

(*b*) *Transportation.*—(i) A revision of the charges paid for the handling of consignments was found possible at certain stations. On the East Indian Railway, for instance, the estimated saving at the end of the year was Rs. 40,000.

(ii) Saving was effected by the pooling of railway resources at certain joint stations. At Manihari Ghat this amounted to about Rs. 2,400 per annum.

(iii) On the North Western Railway certain city booking offices worked departmentally were converted to agencies worked by contractors, with consequent appreciable saving.

(iv) On some railways a check on demands for stationery and forms resulted in a reduction in stocks.

(*c*) *Mechanical.*—(i) On the North Western Railway pooling of locomotives was extended to various sections of the line and engine links were examined and revised to obtain increased mileage, with the result that the average miles per day per engine in use increased from 106 in 1935-36 to 109 in 1936-37.

Efforts made on the Moradabad Division of the East Indian Railway to extend the run of goods engines resulted in a saving of eight engines.

On the Bengal Nagpur Railway the extended use of the pooling system of engines enabled arrangements to be put in hand for closing two locomotive sheds.

(ii) 34 locomotives, 51 boilers, 127 coaching units and 486 goods units, in terms of 4-wheelers, were condemned by the North Western Railway without replacement during the year, representing a reduction of approximately 44 lakhs in the capital at charge.

Five engines were condemned on the Bengal Nagpur Railway without replacement.

(iii) On the North Western Railway, Ruk Junction was closed as a train examining station.

(iv) On the North Western Railway economy was effected by a reduction in the amount of lettering and lining on carriages and by doing away with the use of gold in lettering.

(v) A system of cleaning of engines by contract was introduced on certain Divisions of the East Indian Railway and it is estimated that approximately one lakh per annum will be saved when this arrangement is adopted on the entire system.

(vi) As a result of the intensive use of coaching stock the East Indian Railway amended their 1936-37 rolling stock programme averting a capital expenditure of Rs. 11,46,000, besides effecting a saving of 10 lower class and 3 upper class bogies, the capitalised cost of which would have been Rs. 4,66,000 approximately.

(vii) On the Great Indian Peninsula Railway one B. E. S. A. Passenger engine (4-6-0) was equipped with roller bearings for the carrying wheels and extended bearings ($13\frac{1}{2}''$ instead of $9''$) for the coupled wheels. The engine was released after periodical overhaul with these alterations in October 1935. Up to the end of March 1937, it had completed 125,242 miles and was stopped during the total period for five 'spare' days and only seventeen 'repair' days involving considerable saving in maintenance expenditure. It is proposed to proceed further with this experiment during 1938-39.

(viii) A system of coaling engines by contract was introduced by the Eastern Bengal Railway in the Calcutta area. This resulted in appreciable saving, and it is proposed to extend this system to other principal sheds on the line.

(ix) Various Standing Committees have been formed on the Eastern Bengal Railway for the examination of all scrap and unserviceable materials, with a view to their reclamation and further use.

(x) The introduction on the Eastern Bengal Railway of the revised shopping period for coaching stock, increasing from 6 to 9 months the period after which enamelling is required to be done, and the adoption of grease lubrication for connecting and coupling rods and for axle boxes have resulted in a saving in expenditure.

(*d*) *Engineering.*—(i) An *ad hoc* committee was constituted by the Railway Board in August 1936 to consider whether an adequate measure of safety could not be maintained with less expensive standards of signalling and interlocking. The Committee made several recommendations for the alteration of certain rules which experience had proved to be too stringent and which had hitherto entailed considerable expenditure in providing equipment of a standard in excess of actual requirements. Although the immediate economies resulting from the adoption of these recommendations is small, it is anticipated that progressively a considerable saving in capital expenditure as also in maintenance may be expected, along with a general speeding up of trains.

The recommendations contemplate briefly—

(1) a general increase of speed and particularly through station yards,

(2) the elimination of 'refinements' which though convenient, were not strictly necessary for safety, and

(3) the adoption by railways of signal fittings, which are standard and therefore less expensive, and their purchase from established firms instead of manufacturing them in the railway shops, with consequent saving in expenditure and staff.

(ii) At the same time the Railway Board also approved certain reductions in the standard of strength to which bridges and track are to be renewed so as to co-relate them more exactly with the volume and weight of traffic they are expected to carry, and also in the existing schedules of running and fixed dimensions which had been framed with a view to providing for an eventual increase in the weight of locomotives and the size of passenger and other rolling stock. The cumulative effect on capital expenditure of these alterations is expected to be considerable, as they entail a reduction in the

areas of land that will be required and, by effecting a number of small savings, will reduce also the cost of future remodelling schemes.

(iii) The use of diesel pumping sets in place of steam pumps at certain stations on the Assam Bengal Railway reduced working costs by about 75 per cent.

(iv) On the Bengal Nagpur Railway the repairing of points and crossings *in situ* by the welding process resulted in a saving of Rs. 54,000.

(v) On the Bengal Nagpur Railway a reduction was effected in the consumption of electrical energy for operating the Khargpur water works.

(vi) The North Western Railway found it possible to use on narrow gauge lines the steel sleepers which had become unserviceable on the broad gauge.

16. Indian Railway Enquiry Committee.—As a result of the recommendation of the Public Accounts Committee, the Indian Railway Enquiry Committee was appointed on October 20th, 1936.

The terms of reference were as follows :—

"To examine the position of Indian State-owned railways and to suggest such measures as may, otherwise than at the expense of the general budget,

(i) secure an improvement in net earnings, due regard being paid to the question of establishing such effective co-ordination between road and rail transport as will safeguard public investment in railways, while providing adequate services by both means of transport; and

(ii) at a reasonably early date, place railway finances on a sound and remunerative basis."

The Committee consisted of the following members :—

Sir Ralph L. Wedgewood, C.B., C.M.G., Chief General Manager, London and North Eastern Railway, Chairman;

Mr. W. A. Stanier, M.I., Mech.E., M.I., Loco. E., Chief Mechanical Engineer, London, Midland and Scottish Railway; and

Mr. H. Cheadle, D.S.O., M.C., Chief Traffic Manager, South African Railways.

The Committee was assisted by Mr. A. Forbes Smith, Assistant (Rates and Statistics) to the Chief General Manager, London and North Eastern Railway, Sir Raghavendra Rau, Financial Commissioner of Railways, Mr. A. E. Tylden Pattenson, Member, Traffic, Railway Board, and Mr. B. M. Staig, C.S.I., I.C.S., who was to succeed Sir Raghavendra Rau.

The Committee worked in India for about three months and during this period they visited Delhi, Lahore, Bombay, Secunderabad, Madras, Calcutta, Lucknow and Cawnpore and had detailed discussions with Members of the Railway Board and interviewed the Agents and Principal Officers of the following Railways :—North Western, Great Indian Peninsula, Bombay, Baroda and Central India, Madras and Southern Mahratta, South Indian, East Indian, Eastern Bengal, Bengal Nagpur, Assam Bengal and Bengal and North-Western Railways. Special visits were paid to the metre gauge section of the Eastern Bengal Railway and to the Bihar Coal-fields. The Committee also took the opportunity of visiting important passenger stations, goods stations and marshalling yards lying on or near their route.

The Committee also discussed matters arising out of their terms of reference (particularly the problem of rail-road transport) with the representatives of the following provincial Governments :—Assam, Bengal, Bombay, Madras, the Punjab, and the United Provinces. They also invited the various important Chambers of Commerce and other Commercial and Industrial bodies to send a Memorandum of their views and supplement this by oral evidence at subsequent interviews. The members of the Committee sailed from Bombay on February 20th to complete their report in England.

CHAPTER II.

FINANCIAL RESULTS.

I.—*Trade Review.*

17. *Exports.*—During the year 1936-37, the total value of exports including re-exports amounted to Rs. 202 crores as compared with Rs. 164 crores in the preceding year, an increase of Rs. 38 crores or 23·2 per cent. The following table shows the fluctuation in important commodities :—

Commodity.		Quantity (in thousands).					Value.				
		1929-30.	1935-36.	**1936-37.**	1936-37 compared with 1929-30.	1936-37 compared with 1935-36.	1929-30.	1935-36.	**1936-37.**	1936-37 compared with 1929-30.	**1936-37 compared with 1935-36.**
							(Rs. crores)	(Rs. crores)	(Rs. crores)	(Rs. lakhs)	(Rs. lakhs)
Raw Jute	Bales	4,518	4,319	**4,595**	+77	+276	27·17	13·71	**14·77**	—12,40	+1,06
Metals and ores . . .	Tons	1,691	1,563	**1,608**	—83	+45	10·34	7·73	**8·02**	—2,32	+29
Pig iron	,,	569	538	**574**	+5	+36	2·59	1·24	**1·29**	—1,30	+5
Pig lead	Cwts.	1,456	1,309	**1,410**	—46	+101	2·45	1·78	**2·35**	—10	+57
Manganese ore . . .	Tons	816	729	**677**	—139	—52	2·29	1·32	**1·31**	—98	—1
Wolfram ore	,,	2	8	**9**	+7	+1	0·28	1·41	**1·09**	+81	—32
Jute cloth	Yds.	1,650,525	1,218,000	**1,709,886**	+59,361	+491,886	29·70	12·24	**15·47**	—14,23	+3,23
Hides and skins	Tons	68	69	**77**	+9	+8	15·94	9·33	**11·18**	—4,76	+1,85
Indian raw wool . . .	lbs.	50,366	49,000	**51,938**	+1,572	+2,938	4·42	2·10	**2·86**	—1,56	+76
Jute bags	No.	522,291	459,000	**567,422**	+45,131	+108,422	21·89	11·01	**12·09**	—9,80	+1,08
Food grains	Tons	2,510	1,553	**1,878**	—632	+325	34·79	12·41	**15·39**	—19,40	+2,98
Wheat	,,	13	10	**231**	+218	+221	0·21	0·10	**2·10**	+1,89	+2,00
Barley	,,	6	4	**10**	+4	+6	0·07	0·02	**0·06**	—1	+4
Wheat flour	,,	51	18	**24**	—27	+6	1·07	0·22	**0·32**	—75	+10
Rice	,,	2,326	1,410	**1,466**	—860	+56	31·51	11·03	**11·58**	—19,93	+55
Paraffin wax	,,	66	54	**47**	—19	—7	3·18	2·28	**1·96**	—1,22	—32
Coffee	Cwts.	184	216	**211**	+27	—5	1·45	1·02	**0·84**	—61	—18
Cotton manufactures including twist and yarn.	..	..	..	..	..	..	7·19	2·93	**3·78**	—3,41	+85
Indian cotton piecegoods .	Yds.	133,426	71,200	**101,636**	—31,790	+30,436	4·67	2·03	**2·63**	—2,04	+60
Cotton twist and yarn .	lbs.	24,570	9,700	**12,137**	—12,433	+2,437	1·90	0·47	**0·59**	—1,31	+12
Wood and timber and manufactures thereof.	..	..	..	..	..	..	1·80	1·35	**1·77**	—3	+42
Raw rubber	lbs.	25,673	31,000	**28,940**	+3,267	—2,060	1·79	·89	**1·04**	—75	+15
Raw hemp	Cwts.	435	643	**769**	+334	+126	0·68	0·60	**0·69**	+1	+9
Tobacco	lbs.	27,069	29,598	**29,304**	+2,235	—294	1·06	0·92	**0·93**	—13	+1
Coir manufactured . .	Cwts.	630	684	**550**	—80	—134	1·04	0·88	**0·71**	—33	—17
Lac (chiefly shellac) . .	,,	669	488	**834**	+165	+346	6·97	1·58	**2·34**	—4,63	+76
Raw cotton	Bales	4,070	3,396	**4,268**	+198	+872	65·08	33·77	**44·41**	—20,67	+10,64
Tea	lbs.	376,634	313,000	**301,868**	—74,766	—11,132	26·01	19·82	**20·04**	—5,97	+22
Oilseeds	Tons	1,195	672	**1,155**	—40	+483	26·46	10·30	**18·44**	—8,02	+8,14
Linseed	,,	248	165	**296**	+48	+131	5·72	2·21	**4·36**	—1,36	+2,15
Groundnut	,,	714	413	**739**	+25	+326	16·39	6·65	**12·29**	—4,10	+5,64
Rapeseed	,,	44	19	**38**	—6	+19	0·92	0·26	**0·54**	—38	+28
Castor seed	,,	106	60	**43**	—63	—17	2·15	0·83	**0·63**	—1,52	—20
Coal	,,	685	198	**250**	—435	+52	0·72	0·17	**0·20**	—52	+3
Woollen carpets and rugs .	lbs.	4,636	9,347	**9,898**	+5,262	+551	0·85	0·81	**0·86**	+1	+5
Opium	Cwts.	4	..	..	—4	..	1·42	..	..	—1,42	..
Fodder, bran and pollards .	Tons	250	258	**277**	+27	+19	1·19	0·73	**0·96**	—23	+23
Animals	No.	488	268	**217**	—271	—51	0·37	0·09	**0·08**	—29	—1

NOTE.—It will be observed that as compared with 1935-36, there were increases under almost all the articles specified above, the more important among them being Food-grains, Jute bags and cloth, raw cotton, raw jute, oilseeds and hides and skins.

18. *Imports.*—The total value of the imports of foreign merchandise into British India during 1936-37 amounted to Rs. 125 crores as compared with Rs. 134 crores in the preceding year, a decline of Rs. 9 crores or 6·8 per cent. The following table shows the fluctuation in important commodities :—

Commodity.		Quantity (in thousands).					Value.				
		1929-30.	1935-36.	**1936-37.**	1936-37 compared with 1929-30.	1936-37 compared with 1935-36.	1929-30.	1935-36.	**1936-37.**	1936-37 compared with 1929-30.	1936-37 compared with 1935-36.
							(Rs. crores)	(Rs. crores)	(Rs. crores)	(Rs. lakhs)	(Rs. lakhs)
Raw cotton	Tons	24	77	**65**	+41	—12	3·42	6·75	**5·85**	+2,43	—90
Machinery and millwork	..	..	..	..	..	..	18·22	13·68	**14·14**	—4,08	+46
Jute machinery	..	..	..	..	..	..	1·44	1·15	**0·74**	—70	—41
Electrical machinery	..	..	..	..	..	..	2·41	2·05	**2·55**	+14	+50
Boilers	..	..	..	..	..	..	1·09	0·76	**0·87**	—22	+11
Metals and ores	Tons	1,034	534	**425**	—609	—109	23·62	12·03	**9·69**	—13,93	—2,34
Iron and steel	,,	973	449	**363**	—610	—86	17·21	7·22	**5·94**	—11,27	—1,28
Metals other than iron and steel and manufactures thereof.	,,	55	84	**61**	+6	—23	6·38	4·80	**3·73**	—2,65	—1,07
Coal tar dyes	lbs.	19,136	20,447	**16,949**	—2,187	—3,498	1·97	3·03	**2·61**	+64	—42
Electrical instruments	..	..	..	..	..	..	3·61	3·08	**3·04**	—57	—4
Paper and pasteboard	Cwts.	2,740	3,333	**3,203**	+463	—130	3·72	2·99	**2·82**	—90	—17
Provisions	..	..	..	..	..	..	5·64	3·12	**3·20**	—2,44	+8
Hardware	..	..	..	..	..	..	5·07	3·27	**2·89**	—2,18	—38
Chemicals	..	..	..	..	..	..	2·79	3·12	**2·72**	—7	—40
Wheat	Tons	357	13	..	—357	—13	4·98	0·10	..	—4,98	—10
Dried fruit	,,	70	90	**90**	+20	..	1·49	1·02	**1·15**	—34	+13
Rubber manufactures	..	..	..	..	..	..	3·30	2·07	**2·11**	—1,19	+4
Textile group	..	..	..	..	..	..	72·56	30·55	**27·35**	—45,21	—3,20
Cotton piecegoods	yds.	1,919,346	946,729	**763,996**	-1,155,350	—182,733	50·25	15·78	**13·37**	—36,88	—2,41
Cotton twist and yarn	lbs.	43,882	44,570	**28,520**	—15,362	—16,050	6·00	3·71	**2·55**	—3,45	—1,16
Wool and woollen goods	..	..	..	..	..	..	4·28	2·79	**2·87**	—1,41	+8
Artificial silk	..	..	..	..	..	..	4·32	3·16	**3·86**	—46	+70
Silk piecegoods	..	..	..	..	..	..	2·23	0·90	**0·81**	—1,42	—9
Rice (not in the husk)	Tons	6	90	**18**	+12	—72	0·08	0·67	**0·17**	+9	—50
Soap	Cwts.	448	60	**48**	—400	—12	1·67	0·34	**0·27**	—1,40	—7
Sugar	Tons	1,011	201	**23**	—988	—178	15·78	1·91	**0·24**	—15,54	—1,67
Motor vehicles (cars and cycles).	No.	19	14	**14**	—5	..	7·52	4·49	**4·52**	—3,00	+3
Motor omnibuses	,,	15	8	**9**	—6	+1					
Mineral oils	Gal.	252,768	226,787	**234,009**	—18,759	+7,222	11·04	5·92	**5·93**	—5,11	+1
Kerosene oil	,,	106,457	64,423	**62,209**	—44,248	—2,214	5·89	2·17	**1·96**	—3,93	—21
Fuel oil	,,	110,203	138,527	**139,729**	+29,526	+1,202	2·10	2·20	**2·10**	..	—10
Cotton hosiery	..	..	..	..	..	..	1·44	0·50	**0·33**	—1,11	—17
Haberdashery and millinery	..	..	..	..	..	..	1·04	0·59	**0·64**	—40	+5
Boots and shoes	Pairs	6,761	2,906	**1,693**	—5,068	—1,213	0·88	0·29	**0·21**	—67	—8
Precious stones and pearls, unset.	..	..	..	..	..	..	1·10	0·48	**0·98**	—12	+50

NOTE.—As compared with 1935-36, the principal items showing decreases were cotton yarn and piecegoods, metals, sugar and raw cotton, while there were increases under machinery, artificial silk and precious stones and pearls.

19. *Balance of trade.*—The visible balance of trade in merchandise and treasure for the year 1936-37 was in favour of India to the extent of Rs. 92 crores as compared with Rs. 67 crores in the preceding year.

II.—*Financial Results of State Railways.*

20. Financial results of working.—The improvement in earnings noticed in the last five or six weeks of 1935-36 continued in 1936-37 but, from November 1936 onwards, the increase was particularly large, so much so that in the last 5 months the betterment over the previous year was nearly double of that achieved in the first seven months. The result was that the gross traffic receipts of State-owned railways for the year amounted to $95\frac{1}{2}$ crores against $90\frac{2}{3}$ crores, or nearly $4\frac{3}{4}$ crores more than in the previous year. The increase is largely attributable to the revival of trade.

Ordinary working expenses, excluding depreciation, amounted to about $50\frac{1}{4}$ crores, or about $\frac{2}{3}$rds of a crore less than in the year 1935-36. The figure would, however, have been almost the same as in the previous year (only 8 lakhs more) in spite of the increase in traffic, but for some changes made in the accounting of expenditure on certain classes of renewals and replacements.

The contribution to the Depreciation Fund set apart from railway revenue was 13·15 crores, or 10 lakhs less than in the previous year. This reduction was due to a decrease in the capital at charge of railways owing to certain adjustments made in the accounts for 1935-36 in respect of conversion of sterling liabilities involved in the purchase of certain railways. Including these charges, the working expenses for 1936-37 amounted to 63·37 crores against 64·12 crores in 1935-36, showing a decrease of 75 lakhs.

Miscellaneous transactions resulted in a net expenditure of 9 lakhs against a net receipt of 87 lakhs in 1935-36. This was mainly due to the treatment of credits for released materials as reduction of expenditure from the Depreciation Fund in 1936-37. In the previous years these were treated as " Miscellaneous Receipts ". These credits were 115 lakhs in 1936-37 against 110 lakhs in the previous year. Allowing for this change in accounting, the miscellaneous transactions show an increase of 19 lakhs over the previous year. Payments of surplus profits to railways of about 8 lakhs less and a receipt of 14 lakhs more for interest on Depreciation Fund balance counterbalanced by a decrease of 3 lakhs in the guarantee received from Local Governments on unremunerative lines, mainly account for this difference.

The net revenue amounted to 32·02 crores against 27·40 crores in the previous year and was in excess of interest charges by 121 lakhs, which was thus the surplus after meeting all charges. This surplus was added to the Depreciation Fund in part payment of the amounts withdrawn from that fund to meet deficits in the working of railways in previous years.

The appropriation to the Depreciation Fund was in excess of withdrawals by 529 lakhs. With the credit of 121 lakhs on account of surplus in the working of railways, the actual balance at credit of the fund at end of 1936-37 was 16·10 crores, and the nominal balance amounted to 46·47 crores.

The total works expenditure during the year amounted to 8·16 crores of which 28 lakhs was charged to capital and the balance to the Depreciation Fund. Practically the whole of the expenditure of 28 lakhs was on Open Line Works, as only a nominal amount of Rs. 20,000 was spent on New Construction. Stores balances during 1936-37 were reduced by 20 lakhs and the balance at end of the year was reduced to 920 lakhs.

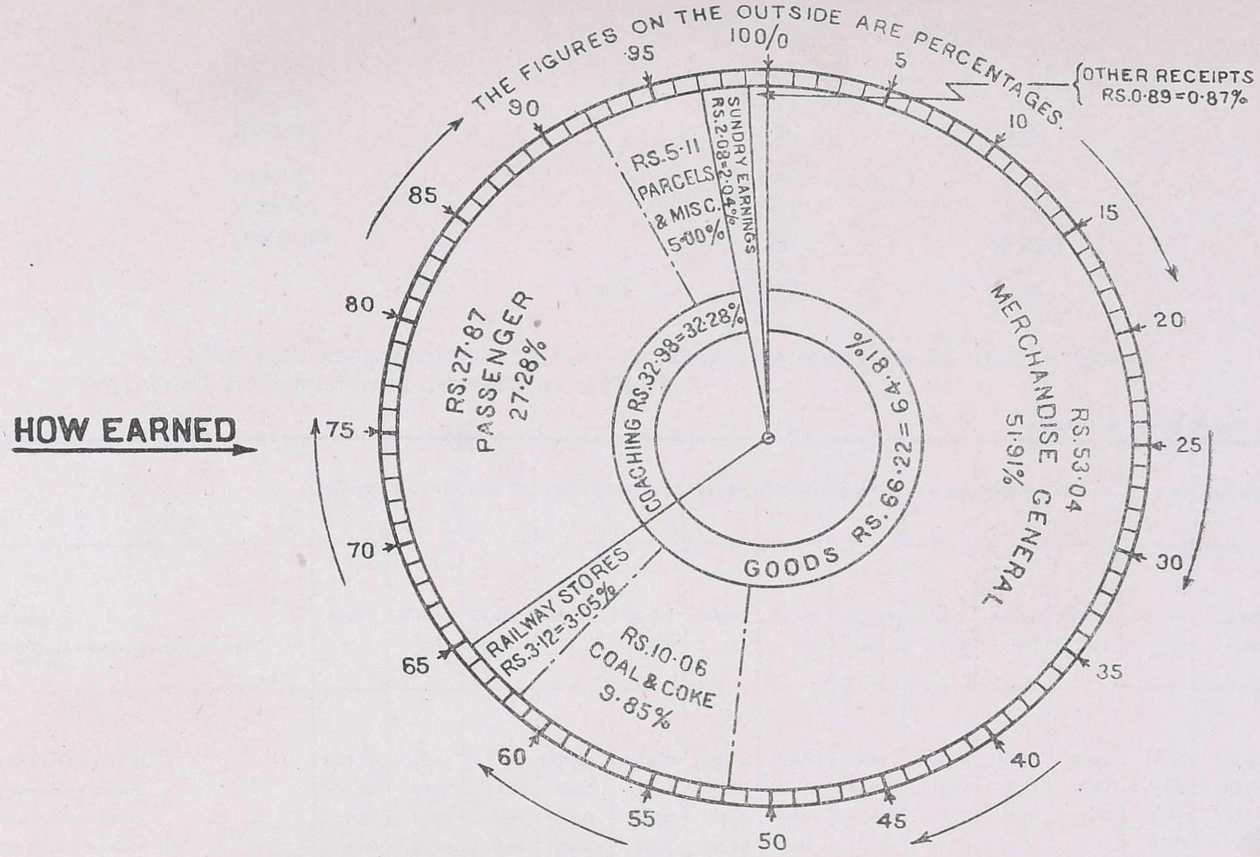
At the end of 1936-37, the unliquidated liabilities of railways amounted to 61 crores, of which $30\frac{1}{4}$ crores is the amount borrowed from the depreciation

RECEIPTS AND EXPENDITURE OF STATE-OWNED RAILWAYS IN INDIA INCLUDING WORKED LINES 1936-37.

FIGURES IN CRORES.

RECEIPTS

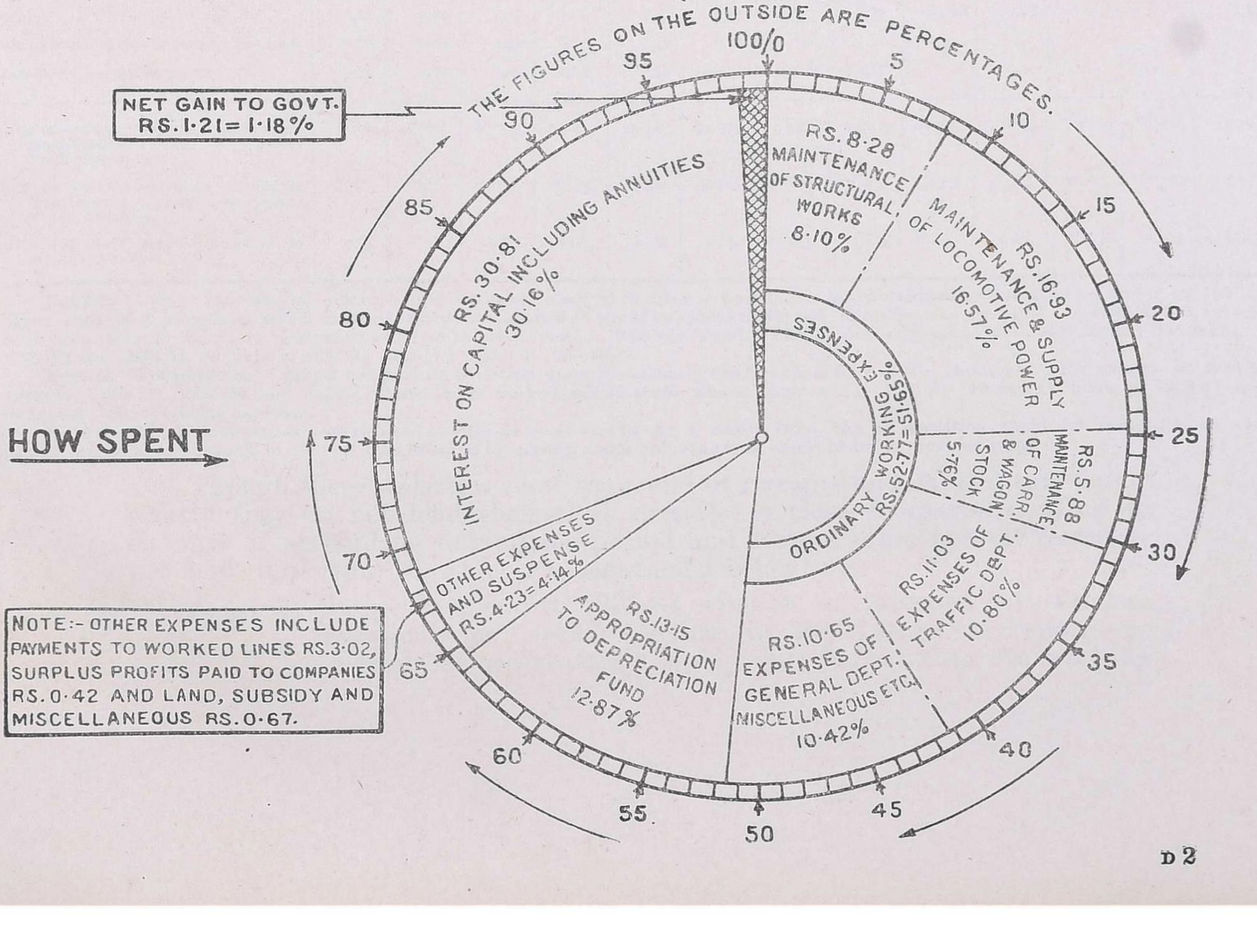
(RS. 102·17)



EXPENDITURE

TOTAL DEBITS INCLUDING INTEREST ON CAPITAL, APPROPRIATION TO THE DEPRECIATION FUND ETC.

(RS. 100·96)



fund. The balance of 30¾ crores represents the contributions due to general revenues but unpaid from 1931-32 to 1936-37. The details are as follows :—

(In crores of rupees.)

	Loans from Depreciation Fund.	Unpaid contributions to general revenues.
1931-32	4·25	5·36
1932-33	10·23	5·23
1933-34	7·96	5·21
1934-35	5·06	5·04
1935-36	3·99	4·99
1936-37	**-1·21**	**4·91**
Total .	30·28	30·74

The following statement gives the financial statistics of Indian State-owned railways from 1924-25 to 1936-37 :—

(Figures in lakhs of rupees.)

—	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	**1936-37.**
Mileage	*26,985*	*27,090*	*27,664*	*28,086*	*29,111*	*30,878*	*31,197*	*31,640*	*31,642*	*31,644*	*31,619*	*31,732*	**31,729**
Capital at charge at end of year. (in crores)	635	654	681	714	739	770	783	790	789	787	787	789	**789**
Gross traffic receipts	1,00,13	98,94	98,42	1,03,43	1,03,73	1,02,70	95,10	86,63	84,43	86,63	90,20	90,65	**95,48**
Operating expenses	51,65	52,99	52,89	53,06	54,22	55,59	54,39	49,31	49,08	49,50	50,27	50,87	**50,22**
Depreciation Fund	10,35	10,67	10,89	11,38	12,00	12,59	13,07	13,46	13,77	13,56	13,72	13,25	**13,15**
Net Traffic receipts	38,13	35,28	34,64	38,99	37,51	34,52	27,64	23,86	21,58	23,57	26,21	26,53	**32,11**
Net Miscellaneous receipts after deducting miscellaneous charges and surplus profits payable to companies.	—1,07	—1,19	—1,27	—87	—37	—2	—11	1	1,10	1,05	53	87	**—9**
Net revenue	37,06	34,09	33,37	38,12	37,14	34,50	27,53	23,87	22,68	24,62	26,74	27,40	**32,02**
Interest charges	23,90	24,81	25,87	27,27	29,33	30,46	32,72	33,07	32,91	32,58	31,80	31,39	**30,81**
Surplus	13,16	9,28	7,50	10,85	7,81	4,04	—5,19	—9.20	—10,23	—7,96	—5,06	—3,99	**1,21**
Paid as contribution to general revenues	6,78	5,49	6,01	6,28	5,23	6,12	74	..	..	..	..	..	..
Transferred to railway reserve . .	6,38	3,79	1,49	4,57	2,58	—2,08	—10,93	—4,95	..	..	..	..	..
Ratio of working expenses (excluding Depreciation Fund) to Gross Traffic Receipts.	51·6%	53·6%	53·7%	51·3%	52·3%	54·1%	57·2%	56·9%	56·7%	55·8%	54·7%	54·9%	**51·4%**
Ratio of working expenses (including Depreciation Fund) to Gross Traffic Receipts.	61·9%	64·3%	64·8%	62·3%	63·8%	66·4%	70·9%	72·5%	73·0%	71·4%	69·9%	69·5%	**65·2%**
Ratio of Net Traffic Receipts to capital at charge.	6·0%	5·4%	5·1%	5·5%	5·1%	4·5%	3·5%	3·0%	2·7%	3·0%	3·3%	3·4%	**4·2%**

NOTE 1.—Credits for materials released from works not charged to revenue were taken in reduction of operating expenses up to 1931-32. Since then they have been added to receipts and are included in the above table under net miscellaneous receipts. In 1936-37 these credits have been taken in reduction of expenditure from the Depreciation Reserve Fund. The amounts involved are as follows : 119 lakhs, in 1932-33 and 1933-34, 90 lakhs in 1934-35, and 110 lakhs in 1935-36.

NOTE 2.—For purposes of proper comparison with past years the ratios in the last three lines of the statement with respect to 1932-33, 1933-34, 1934-35, 1935-36 and 1936-37 have been worked out as if the above sums of 119, 119, 90, 110 and 115 lakhs for 1936-37 were deducted from operating expenses.

NOTE 3.—Working expenses were reduced in 1930-31 by 166 lakhs by a credit from the Depreciation Fund for correction of past accounting adjustments and in 1924-25 by 179 lakhs by certain abnormal refunds of expenditure in previous years.

Though these statistics show the trend of receipts and expenditure fairly clearly they do not lend themselves directly to close comparison owing to changes of accounting during the period and certain other special features, the more important of which are mentioned below :—

(*a*) In the years prior to 1932-33, credits on account of material released from works whether in the nature of repairs or renewals or replacements were taken as reducing the working

expenses but since that year only credits in connection with repairs and maintenance operations are so taken. For comparison with earlier years, the following sums should be deducted from the working expenses of the years 1932-33 and thereafter :—

	(In lakhs of rupees.)
1932-33	119
1933-34	119
1934-35	90
1935-36	110
1936-37	115

(*b*) In 1924-25, working expenses were reduced by a refund of customs duty paid in earlier years on stores imported for Company-managed railways amounting to 141 lakhs and by a transfer from reserves of 38 lakhs representing the cost of writing down stores. A sum of 179 lakhs should be added to the working expenses of that year.

(*c*) In 1930-31, working expenses were reduced by 166 lakhs by a credit from the depreciation fund for correction of past erroneous adjustments.

(*d*) the emergency deductions made from the pay of the staff reduced the working expenses in certain years, namely :—

	(In lakhs of rupees.)
1931-32	44
1932-33	1,91
1933-34	1,14
1934-35	1,00
1935-36	8
1936-37	...

(*e*) In 1936-37 renewal and replacement expenditure of about 73 lakhs was transferred from ordinary working expenses to Depreciation Fund.

Making allowance for these factors, the comparable figures of traffic receipts and working expenses from 1924-25 are as follows :—

(In crores of rupees.)

Year.	Traffic Receipts.	Ordinary working expenses including cut in pay.	Ordinary working expenses excluding cut in pay.
1924-25	100·13	53·44	53·44
1925-26	98·94	52·99	52·99
1926-27	98·42	52·89	52·89
1927-28	103·43	53·06	53·06
1928-29	103·73	54·22	54·22
1929-30	102·70	55·59	55·59
1930-31	95·10	56·05	56·05
1931-32	86·63	49·31	49·75
1932-33	84·43	47·89	49·80
1933-34	86·63	48·31	49·45
1934-35	90·20	49·37	50·37
1935-36	90·65	49·77	49·85
1936-37	**95·48**	**49·80**	**49·80**

The figures show that the steady improvement which started in 1933-34 was still continuing, so much so that the receipts for 1936-37 were slightly

better than those for 1930-31, while the working expenses were about 6 crores less. The statement below gives the net revenue and the interest charges as an average of the capital at charge by the end of the year :—

(In lakhs of rupees.)

Year.	Net revenue.	Percentage of net revenue to capital at charge.	Interest charges.	Percentage of interest charges to capital at charge.	Surplus or Deficit.
1924-25	37,06	5·8	23,90	3·8	13,16
1925-26	34,09	5·2	24,81	3·8	9,28
1926-27	33,37	4·9	25,87	3·8	7,50
1927-28	38,12	5·3	27,27	3·8	10,85
1928-29	37,14	5·0	29,33	4·0	7,81
1929-30	34,50	4·5	30,46	4·0	4,04
1930-31	27,53	3·5	32,72	4·2	—5,19
1931-32	23,87	3·0	33,07	4·2	—9,20
1932-33	22,68	2·9	32,91	4·2	—10,23
1933-34	24,62	3·1	32,58	4·1	—7,96
1934-35	26,74	3·4	31,80	4·0	—5,06
1935-36	27,40	3·5	31,39	4·0	—3,99
1936-37	**32,02**	**4·1**	**30,81**	**4·0**	**1,21**

The operating ratio of all State-owned railways, *i.e.*, the ratio of working expenses to gross traffic receipts has been reduced from 55 per cent. (excluding depreciation) and 70 per cent. (including depreciation) in 1935-36 to 51 per cent. and 65 per cent. respectively. The former has touched the lowest level reached in 1927-28. The latter, however, is the lowest since 1929-30, as the contribution to the Depreciation Fund has increased by about 3 crores in the last 12 years. In the table below, the ratios of earlier years are given for purposes of comparison :—

Year.	Percentage, excluding depreciation.	Percentage, including depreciation.
Average of 5 years, 1924-25 to 1928-29	52·5	63·5
1929-30	54	66
1930-31	59	73
1931-32	57	73
1932-33	57	73
1933-34	56	71
1934-35	55	70
1935-36	55	70
1936-37	**51**	**65**

For purposes of comparison certain statistics available for some foreign railways are given below.

The gross receipts of the 4 amalgamated British railways in 1936 amounted to £182 million, an increase of £7 million (4 per cent.) over the

previous year, but £25½ million (12 per cent.) less than in 1929. Their working expenses amounted to £148 million or £4 million (3 per cent.) more than in the previous year and £20 million (12 per cent.) less than in 1929. The operating ratio was 81 per cent. as against 82·65 per cent. in the previous year but it was the same as in 1929.

The Canadian Pacific Railway earned 139 million dollars in 1936, 9 million dollars (7 per cent.) more than in the previous year, and 71 million dollars (34 per cent.) less than in 1929. Their working expenses were 115 million dollars—8 million dollars (7 per cent.) more than in 1935 and 52 million dollars (31 per cent.) less than in 1929. The operating ratio, which was 79½ per cent. in 1929 and 82¾ per cent. in 1935, stood at 83¼ per cent. in 1936.

The Canadian National Railways realised 187 million dollars in 1936, 14 million dollars (8 per cent.) more than in 1935 and 81 million dollars (30 per cent.) less than in 1929. Their working expenses rose to 171 million dollars, which was higher by 12 million dollars (8 per cent.) than in 1935 but 50 million dollars (22 per cent.) below that of 1929. The operating ratio of 92 per cent. is the same as in the previous year but 9½ per cent. higher than in 1929.

The receipts of the principal railways of the United States were 4,044 million dollars in 1936, which was about 17 per cent. more than in 1935, but 23 per cent. less than in 1930. The working expenses, which were 2,925 dollars, were 13 per cent. more than in the previous year but 25·5 per cent. less than in 1930. The operating ratio in 1936 was 72·33 per cent. against 75·11 per cent. in 1935 and 74·4 per cent. in 1930.

The gross receipts of the German State Railways for 1936 were Reichmarks 3,985 million, which showed an increase of Reichmarks 399 million (11 per cent.) over the previous year and of Reichmarks 659 million (20 per cent.) as compared with 1934. Their working expenses came to Reichmarks 3,513 million or Reichmarks 79 million (2 per cent.) more than in the previous year and Reichmarks 211 million (6 per cent.) more than in 1934. The operating ratio was 88·16 per cent. against 95·75 per cent. in 1935 and 99·28 per cent. in 1934.

21. *Traffic Receipts.*—The following table compares the traffic receipts in detail with the previous years:—

(Crores of rupees.)

—	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Passenger earnings	35·34	35·75	31·68	28·96	28·94	27·65	27·92	28·08	**27·82**
Other coaching earnings	6·17	5·81	5·40	5·27	5·03	4·92	4·92	5·05	**5·19**
Goods earnings	67·78	65·25	60·69	55·41	53·76	58·20	61·05	61·43	**66·34**
Sundry earnings	2·11	2·21	1·97	1·82	1·63	1·59	1·62	1·83	**2·10**
Suspense	—·25	·30	·46	·35	·04	—·49	·09	—·23	**—·24**
TOTAL	111·15	109·32	100·20	91·81	89·40	91·87	95·60	96·16	**101·21**
Less—									
Refunds	*·15*	*·15*	*·11*	*·11*	*·11*	*·11*	*·12*	*·14*	***·19***
Earnings of worked lines	*7·27*	*6·47*	*4·99*	*5·07*	*4·86*	*5·13*	*5·28*	*5·37*	***5·54***
NET	103·73	102·70	95·10	86·63	84·43	86·63	90·20	90·65	**95·48**

There has been an improvement, as compared with the previous year under all the various items included in earnings except passenger earnings.

Goods earnings have made a marked improvement and are better than even 1929-30 which was a year of prosperity. On the other hand passenger earnings have shown a set-back, as compared with the previous year, and are on the same level as the earnings of the two earlier years.

The statement below gives the details of passenger earnings on all Class I Railways from 1929-30 onwards. Figures are not available separately for State-owned railways alone, but the figures for Class I Railways can be taken as sufficiently representative. The fall is wholly in third class traffic.

Passenger earnings for Class I Railways.

(In lakhs of rupees.)

Classes.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	**1936-37.**
First class	1,02	92	82	77	75	76	77	**80**
Second class	1,77	1,65	1,49	1,43	1,37	1,37	1,41	**1,42**
Intermediate class	1,56	1,39	1,21	1,13	1,10	1,10	1,10	**1,13**
Third class	32,46	28,72	26,35	26,50	25,29	25,53	25,67	**25,33**
TOTAL	36,81	32,68	29,87	29,83	28,51	28,76	28,95	**28,68**

The statement below gives details of the various commodities which have contributed to the goods earnings of all Class I Railways and compares them with similar figures for the past few years.

(Figures in lakhs.)

—	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	**1936-37.**
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	**Rs.**
1. Cotton, raw pressed and unpressed.	4,50	3,99	2,42	2,77	3,58	3,42	3,76	**4,64**
2. Cotton manufactured	2,41	2,32	2,34	2,42	2,38	2,45	2,52	**2,50**
3. Coal for the public	6,75	6,19	5,98	5,93	6,54	7,09	6,93	**6,98**
4. Coal for foreign railways and home line construction.	2,77	2,63	2,15	2,24	2,28	2,49	2,45	**2,58**
5. Metallic ores	1,47	93	58	45	64	95	1,30	**1,15**
6. Rice	4,17	3,67	3,71	3,45	3,89	4,19	3,78	**4,05**
7. Wheat	2,03	2,69	2,16	1,84	1,85	2,10	2,12	**2,48**
8. Gram, pulse and other grains	3,53	3,42	3,58	3,09	2,91	3,36	3,08	**3,51**
9. Iron and steel wrought	2,46	2,07	1,81	2,00	2,21	2,34	2,57	**2,65**
10. Kerosene oil	1,69	1,50	1,62	1,38	1,46	1,52	1,49	**1,64**
11. Jute	1,47	1,36	99	1,12	1,29	1,24	95	**1,30**
12. Oil seeds	3,95	4,01	3,52	2,88	3,64	2,99	2,78	**3,31**
13. Sugar	2,03	2,03	1,51	1,30	1,67	1,57	1,59	**2,30**
14. Gur, jagree and molasses	94	98	1,27	1,39	1,21	1,21	1,28	**1,31**

The most noticeable improvements in 1936-37 are in cotton raw pressed and unpressed (88 lakhs), in sugar (71 lakhs) in oil seeds (53 lakhs),

in gram, pulses and other grains (43 lakhs), in wheat (36 lakhs), in jute (35 lakhs) and in rice (27 lakhs). There was, however, a slight decrease in metallic ores and manufactured cotton.

The statement below compares the receipts of individual railways in 1936-37 with the previous years :—

(Figures in lakhs.)

Railways.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Assam Bengal	2,05	1,96	1,84	1,56	1,60	1,80	1,60	**1,68**
Bengal Nagpur	9,31	8,17	7,24	6,91	7,39	7,94	8,64	**8,38**
Bombay, Baroda and Central India	11,52	10,90	10,30	10,17	10,61	11,06	11,08	**11,89**
Burma	4,87	4,28	3,74	3,33	3,57	3,72	3,61	**3,70**
Eastern Bengal	6,73	5,86	5,05	4,91	5,07	5,42	5,26	**5,74**
East Indian	19,85	18,24	17,36	17,27	17,63	18,71	18,62	**19,45**
Great Indian Peninsula	14,58	13,33	11,92	11,94	12,21	12,17	12,40	**13,27**
Madras and Southern Mahratta	8,98	7,98	7,15	6,66	6,84	6,72	6,55	**6,68**
North Western (Commercial)	14,39	14,98	13,34	12,74	13,23	13,87	14,16	**15,63**
North Western (Strategic)	1,59	1,48	1,31	1,23	1,23	1,23	1,26	**1,37**
South Indian	6,33	5,80	5,30	5,51	5,14	5,25	5,00	**5,12**
Other Railways	2,50	2,12	2,08	2,20	2,11	2,31	2,47	**2,57**

During the year under review all railways showed an improvement in earnings except the Bengal Nagpur Railway where there was a decrease of 26 lakhs. It will be noticed that the receipts of the North Western (Commercial) and the Bombay, Baroda and Central India Railways were better than even those of 1929-30, the last year of prosperity. The largest increase (158 lakhs) was on the North Western Railway, both passenger and goods traffic contributing thereto. The improvement in passenger earnings was to some extent due to the enhancement of third class fares from the 1st January 1936, but mainly to the Solar Eclipse fair at Kurukshetra in June 1936 and to the general development in traffic as a result of improved trade conditions. The increase in goods earnings was mainly due to (1) raw cotton and wheat on account of better crops and greater exports to foreign countries, (2) sugar on account of the increased production of sugarcane and (3) petrol, owing partially to increase in imports and partially to enhancement of rates from 1st January 1936. The next largest increases were on the Great Indian Peninsula Railway (87 lakhs), the East Indian Railway (83 lakhs), Bombay, Baroda and Central India Railway (81 lakhs) and on the Eastern Bengal Railway (48 lakhs). This increase was mostly due to the improvement in goods traffic owing to general revival of trade and on the Eastern Bengal Railway to heavy Jute traffic (32 lakhs). On the East Indian Railway the goods earnings were the highest on record, except 1928-29, in which year there was an abnormally heavy traffic in food grains on account of famine. On the Eastern Bengal Railway there was also some improvement in coaching earnings. It was due to the reduction of basic fares of single and ordinary return Intermediate Class tickets and the introduction of week-end return tickets. The issue of "Travel as you like" season tickets, during the Easter and the Christmas-*Cum*-New Year holidays also brought in some fresh revenue to the railway. There were small increases on other railways, *viz.*, Madras and Southern Mahratta, South Indian, Burma, Assam Bengal and the smaller railways aggregating to 52 lakhs.

22. *Ordinary working expenses.*—A comparison of working expenses (excluding depreciation) of all railways by Abstracts is given below. It will be seen that, except in the expenses of the traffic department and the maintenance and supply of locomotive power there has been a reduction all round.

(In lakhs of rupees.)

Abstracts.	1933-34.	1934-35.	1935-36.	1936-37.
Maintenance of Structural Works	8,78	9,05	8,94	**8,29**
Maintenance and supply of Locomotive Power	16,89	17,13	16,82	**16,93**
Maintenance of Carriage and Wagon stock	5,79	6,08	6,32	**5,88**
Maintenance of ferry steamers and harbours	31	32	29	**29**
Expenses of Traffic Department	10,79	10,92	10,86	**11,01**
Expenses of General Department	4,85	4,89	4,88	**4,86**
Miscellaneous Expenses	4,51	4,40	4,38	**4,35**
Electric Service Department	1,20	1,22	1,18	**1,16**
Suspense	—1	—8	—4	**12**
Emergency deductions from pay	—1,14	—1,00	—8	..
TOTAL	51,97	52,93	53,55	**52,89**
Deduct—Recoveries from worked lines	2,60	2,66	2,68	**2,67**
Net Total for State-owned railways	49,37	50,27	50,87	**50,22**

A comparison of the working expenses (excluding depreciation) of each railway with the previous years will be found below :—

(Figures in lakhs.)

—	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36	1936-37.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	**Rs.**
Assam Bengal	1,13	1,12	1,09	1,02	1,07	1,16	1,12	**1,06**
Bengal Nagpur	5,51	5,36	4,83	4,77	4,82	5,06	5,42	**5,30**
Bombay, Baroda and Central India	6,07	6,14	5,47	5,38	5,26	5,44	5,33	**5,55**
Burma	2,57	2,61	2,33	2,04	2,18	2,25	2,25	**2,02**
Eastern Bengal	3,84	3,74	3,29	3,16	3,33	3,41	3,62	**3,63**
East Indian	10,21	9,95	9,02	8,88	8,78	9,19	9,24	**9,23**
Great Indian Peninsula	8,37	8,57	7,13	7,06	6,99	6,78	6,76	**6,55**
Madras and Southern Mahratta	3,95	3,88	3,33	3,24	3,30	3,40	3,41	**3,26**
North Western (Commercial)	8,47	9,03	7,74	7,23	7,57	7,61	7,50	**7,39**
North Western (Strategic)	1,68	1,76	1,38	1,42	1,39	1,43	1,42	**1,43**
South Indian	2,79	2,87	2,63	2,76	2,67	2,73	2,74	**2,68**
Other Railways	1,00	1,02	98	92	95	1,06	1,12	**1,12**

There has been an increase in expenditure on two of the railways, *viz.*, Bombay, Baroda and Central India Railway 22 lakhs and Eastern Bengal Railway 1 lakh but it bears a very small proportion to the increase in traffic receipts.

23. *Losses and gains.*—The statement below gives the net gain or loss of the various railways for every year from 1924-25 to 1936-37. For the purpose of calculating these gains or losses, the figures shown in the Companies' accounts have been recast to accord with the Government accounting procedure, *i.e.*, the working expenses include the Appropriation to the Depreciation Fund and not the actual expenditure on renewals and replacements which are taken into account in the Companies own accounts.

(In lakhs of rupees.)

—	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	TOTAL.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
State-managed railways.														
Burma	42	81	24	61	4	4	—44	—74	—75	—71	—56	—69	—36	—2,09
Eastern Bengal	16	10	70	80	54	16	—80	—1,23	—1,28	—1,25	—93	—1,18	—79	—5,00
East Indian	2,89	2,80	2,67	3,19	2,44	1,61	—18	—24	—13	37	1,14	1,04	1,75	19,35
Great Indian Peninsula	2,42	47	71	1,41	1,08	8	—1,72	—1,78	—1,68	—1,24	—1,04	—67	46	—1,50
North Western (Commercial)	2,87	1,76	1,21	1,23	9	—64	—1,16	—1,58	—1,78	—1,36	—70	25	1,53	1,72
North Western (Strategic)	—1,59	—1,47	—1,65	—1,68	—1,74	—1,90	—2,18	—1,99	—2,09	—2,03	—2,03	—2,10	—1,96	—24,41
Company-managed railways.														
Assam Bengal	—31	—13	—11	4	—6	—24	—39	—52	—74	—73	—60	—84	—75	—5,38
Bengal Nagpur	—12	—47	—40	—20	—47	—66	—1,99	—2,48	—2,80	—2,27	—1,86	—1,38	—1,52	—16,62
Bombay, Baroda and Central India.	2,92	2,20	1,42	1,58	1,64	1,25	43	45	41	99	1,28	1,56	2,16	18,29
Madras and Southern Mahratta	1,11	85	63	1,04	1,38	89	1	14	—27	—4	—26	—38	—3	5,07
South Indian	97	1,13	1,20	1,25	81	1,19	31	1	6	—21	—10	—32	—11	6,19
Lucknow Bareilly	9	9	4	10	6	5	6	4	5	5	8	8	10	89
Tirhoot	62	60	68	56	66	68	24	29	34	25	32	35	41	6,06

The only railways which show a profit during 1936-37 are Bombay, Baroda and Central India (2 crores), the East Indian ($1\frac{3}{4}$ crores), the North Western (Commercial Section) ($1\frac{1}{2}$ crores), the Great Indian Peninsula ($\frac{1}{2}$ crore), the Bengal and North-Western Railway (Tirhoot) ($\frac{1}{2}$ crore) and the Lucknow-Bareilly Railway (10 lakhs).

It is interesting to notice that during the 13 years, of which the first six were prosperous, the State has received large profits from 7 railways. $19\frac{1}{3}$ crores from the East Indian Railway, $18\frac{1}{4}$ crores from the Bombay, Baroda and Central India Railway, about $6\frac{1}{4}$ crores from the South Indian Railway, 6 crores from the Bengal and North-Western Railway (Tirhoot) 5 crores from the Madras and Southern Mahratta Railway $1\frac{3}{4}$ crores from the North Western Railway Commercial lines and about a crore from the Lucknow Bareilly. On the other hand, it had to bear losses on 6 railways. The largest is about $24\frac{1}{2}$ crores on the Strategic Section of the North Western Railway and the next largest $16\frac{2}{3}$ crores on the Bengal Nagpur Railway. On the Assam Bengal Railway it amounts to $5\frac{1}{3}$ crores. The Eastern Bengal, Burma and Great Indian Peninsula Railways are responsible for losses of 5, 2 and $1\frac{1}{2}$ crores respectively.

24. *Capital at charge.*—The statement below shows how the capital at charge on all railways in which the State has financial interest has been growing. For purposes of comparison sterling liabilities included in the

capital at charge have been converted into rupees at the statutory rate of exchange :—

	(Crores of rupees.) Capital at charge at the end of the year.		(Crores of rupees.) Capital at charge at the end of the year.
1923-24	621	1930-31	783
1924-25	635	1931-32	790
1925-26	654	1932-33	789
1926-27	681	1933-34	787
1927-28	714	1934-35	787
1928-29	739	1935-36	789
1929-30	770	1936-37	789*

* NOTE.—Includes 35 crores capital at charge of Burma Railways.

It will be noticed that the capital at charge at end of 1936-37 is the same as at end of 1935-36 and has increased in 13 years by 168 crores, though the increase has not been uniform. During the first six prosperous years, the average yearly increase was 25 crores. During the next seven years, it is less than 3 crores.

Though the total increase in the capital at charge is 168 crores, the real expenditure during these 13 years is 181 crores since stores balances have been reduced by 13 crores in the period. Of this total, the construction of new lines accounts for 48 crores. 12 crores is due to the acquisition of lines already in existence, but owned by private companies, the most important of which are the Delhi-Ambala-Kalka, Amritsar-Patti-Kasur and the Southern Punjab Railways. The balance of 121 crores represents the expenditure charged to capital on additions to and improvements of the open line such as rebuilding of bridges, relaying of track, improvement of traffic facilities, *e.g.*, expansion of station yards, purchasing of improved rolling stock, reconstruction and modernising of workshops and so on. At the same time 115 crores have been spent from the depreciation fund during the period for the improvement of the open line.

25. *Works Expenditure.*—The statement below gives the total expenditure on works year by year from 1924-25 and shows separately the expenditure on new constructions, open line works, and amounts spent on the purchase of railways.

(In lakhs of rupees.)

Years.	New constructions.	Open line works.	Purchase of railways and branch line shares.	Total capital.	Depreciation Fund.	Total works expenditure.
1924-25	3,12	10,26	..	13,38	7,29	20,67
1925-26	4,32	15,31	..	19,63	7,98	27,61
1926-27	6,77	16,13	4,33	27,23	8,05	35,28
1927-28	10,26	22,19	3	32,48	10,95	43,43
1928-29	9,26	15,79	4,30	29,35	9,60	38,95
1929-30	6,65	16,47	7,06	30,18	11,76	41,94
1930-31	4,25	8,95	1	13,21	11,39*	24,60*
1931-32	2,79	3,90	..	6,69	8,26	14,95
1932-33	57	—50	..	7	6,35	6,42
1933-34	22	—2,28	..	—2,06	8,08	6,02
1934-35	18	27	—20	25	8,66	8,91
1935-36	29	1,85	44	2,58	9,16	11,74
1936-37	..	**28**	..	**28**	**7,88**	**8.16**
TOTAL .	48,68	108,62	15,97	173,27	115,41	288,68

* Includes a debit of 166 lakhs for correction of past erroneous adjustments.

The total expenditure on open line works was about 8 crores and was lower by 3½ crores than the expenditure in the previous year. Of the total 2½ crores was on rolling stock, 4 crores on renewal of track, and 1½ crores on general engineering works including about 4½ lakhs on account of expenditure on earthquake damages and Hardinge bridge protection works. It also takes into account the credits amounting to a little more than a crore on account of the value of materials released from works which it has

been decided to adjust under " Depreciation Fund " instead of " Earnings " as in the previous years.

26. *Stores balances.*—The total stores balance at the end of 1936-37 was 20 lakhs less than in the previous year :—

The table below gives the figures for a number of years :—

(Figures in lakhs.)

—	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Assam Bengal	25	32	18	12	9	13	13	15	18	22	21	15	14	13	14	17
Bengal Nagpur	1,40	1,62	1,48	1,50	1,28	1,17	1,08	1,33	1,36	1,21	1,07	1,02	97	1,01	1,06	1,11
Bombay, Baroda and Central India.	2,77	2,72	2,33	1,77	1,63	1,46	1,67	1,62	1,61	1,65	1,46	1,30	1,09	1,02	93	87
Burma	67	85	99	85	75	45	59	61	55	53	51	43	40	42	40	33
Eastern Bengal	2,52	1,76	1,58	1,22	1,12	84	84	80	77	76	69	55	40	43	57	50
East Indian (including Oudh and Rohilkund).	3,92	4,39	4,11	3,14	2,81	2,48	2.99	3,15	3,04	2,48	2,27	2,09	1,60	1,38	1,44	1,30
Great Indian Peninsula	4,66	3,88	3,98	2,90	2,39	2,23	2,53	2,42	2,62	2,52	2,18	1,80	1,51	1,27	1,17	1,03
Madras and Southern Mahratta	1,51	1,66	1,51	1,03	84	77	94	83	83	79	76	72	53	50	50	51
North Western (Commercial)	3,94	3,93	3,80	2,73	2,44	2,86	3,92	3,70	3,48	2,60	2,27	1,85	1,66	1,46	1,52	1,79
North Wesern(Strategic)	58	58	72	63	83	84	92	90	92	94	91	1,02	93	82	75	67
South Indian	1,14	1,39	99	77	1,13	1,07	1,24	1,14	1,06	94	80	70	56	47	48	49
Other Railways	31	41	42	43	37	39	47	44	53	57	52	47	43	43	44	48
TOTAL	23,67	23,51	22,09	17,09	15,68	14,69	17,32	17,09	16,95	15,21	13,65	12,10	10,22	9,34	9,40	9,20

27. *Depreciation Fund.*—The amount appropriated to the depreciation fund by debit to the working expenses of State-owned railways and the amount drawn from the fund to meet the expenditure incurred on the replacements and renewals actually carried out on those railways during 1936-37 are given in the statement below :—

Account of Depreciation Fund for 1936-37.

(Figures in lakhs.)

Railways.	Opening Balance.	Credits to Depreciation Fund in 1936-37.	Amount spent on Replacements and Renewals, etc., and charged to Depreciation Fund in 1936-37.	Closing Balance.
1	2	3	4	5
State Lines managed by State.	Rs.	Rs.	Rs.	Rs.
North Western	9,76	*2,47	1,81	10,42
Eastern Bengal	2,34	86	71	2,49
East Indian (including Tatanagar workshops).	6,50	2,45	1,19	7,76
Great Indian Peninsula	5,81	1,92	99	6,74
Burma	1,33	58	43	1,48
State Lines managed by Companies.				
Bengal Nagpur	4,95	1,29	49	5,75
Bombay, Baroda and Central India	3,96	1,23	2	4,47
Madras and Southern Mahratta	1,87	89	69	2,07
South Indian	1,66	76	46	1,96
Other Railways and Miscellaneous	3,00	72	39	3,33
TOTAL	41,18	13,17	7,88	46,47
Withdrawal from Depreciation Fund to meet the loss on the working of Railways	—31,49	..	..	—31,49
Repayment of loans withdrawn from Depreciation Reserve Fund	..	1,21	..	1,21
Loans to Branch Line Companies	—9	..	..	—9
Net	9,60	14,38	7,88	16,10

* Include Rs. 2·06 lakhs on account of press machinery charged to Capital Account, North Western Railway.

28. An analysis of the financial results of the working of the railways owned by the State is given in the following statement, for the last three years, by each railway :—

(Figures in thousands of rupees.)

Railways.	Year.	(*b*) Capital at charge.	*Deduct* amount of capital contributed by Companies and Indian States.	Net Government Capital at charge.	Receipts.	Working Expenses including Depreciation.	Payment to worked lines.	Net Receipts.	Percentage of Net Receipts on Capital at charge.	CHARGE AGAINST NET REVENUE RECEIPTS. Payment on account of share of Surplus Profits.	CHARGE AGAINST NET REVENUE RECEIPTS. Interest, Annuity and Sinking Fund charges.	Gain.	Loss.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
State Lines managed by State.													
North Western	1934-35	1,46,84,32	..	1,46,84,32	15,90,81	12,33,70	28,81	3,28,30	2·2	..	6,01,27	..	2,72,97
	1935-36	1,46,92,92	..	1,46,92,92	16,35,12	11,99,28	29,82	4,06,02	2·8	..	5,91,27	..	1,85,25
	1936-37	**1,46,84,36**	..	**1,46,84,36**	**17,54,10**	**11,89,01**	**28,15**	**5,36,94**	**3·7**	..	**5,79,92**	..	**42,98**
Eastern Bengal	1934-35	51,10,05	..	51,10,05	5,59,27	4,46,95	7,72	1,04,60	2·0	..	1,97,87	..	93,27
	1935-36	51,59,89	..	51,59,89	5,43,89	4,56,56	8,45	78,88	1·5	..	1,96,92	..	1,18,04
	1936-37	**51,48,09**	..	**51,48,09**	**5,87,46**	**4,63,40**	**8,57**	**1,15,49**	**2·2**	..	**1,94,21**	..	**78,72**
East Indian	1934-35	1,44,50,72	1,12,14	1,43,38,58	18,93,70	11,75,26	7,83	7,10,61	4·9	..	5,96,66	1,13,95	..
	1935-36	1,47,26,41	1,12,14	1,46,14,27	18,86,33	11,80,64	7,74	6,97,95	4·7	..	5,94,39	1,03,56	..
	1936-37	**1,47,70,09**	**1,12,14**	**1,46,57,95**	**19,52,14**	**11,82,27**	**7,81**	**7,62,06**	**5·2**	..	**5,87,32**	**1,74,74**	..
Great Indian Peninsula	1934-35	1,21,31,12	..	1,21,31,12	12,77,85	9,16,55	25,59	3,35,71	2·8	..	4,39,92	..	1,04,21
	1935-36	1,15,03,02	..	1,15,03,02	13,09,86	9,19,39	28,28	3,62,19	3·1	..	4,29,13	..	66,94
	1936-37	**1,14,57,77**	..	**1,14,57,77**	**13,83,25**	**8,86,83**	**31,88**	**4,64,54**	**4·1**	..	**4,18,84**	**45,70**	..
Burma	1934-35	35,02,69	..	35,02,69	3,78,20	2,83,71	..	94,49	2·7	..	1,50,22	..	55,73
	1935-36	34,91,32	..	34,91,32	3,62,33	2,84,08	..	78,25	2·2	..	1,46,72	..	68,47
	1936-37	**34,69,13**	..	**34,69,13**	**3,70,29**	**2,64,77**	..	**1,05,52**	**3·0**	..	**1,41,90**	..	**36,38**

(Figures in thousands of rupees.)

Railways.	Year.	(b) Capital at charge.	*Deduct* amount of capital contributed by Companies and Indian States.	Net Government Capital at charge.	Receipts.	Working Expenses including Depreciation.	Payment to worked lines.	Net Receipts.	Percentage of Net Receipts on Capital at charge.	Charge against net Revenue Receipts.		Gain.	Loss.
										Payment on account of share of Surplus Profits.	Interest, Annuity and Sinking Fund charges.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
State Lines managed by Companies.													
Bengal Nagpur	1934-35	77,45,42	10,12,20	67,33,22	8,07,80	6,56,87	1,29	1,49,64	1·9	..	3,35,69	..	1,86,05
	1935-36	77,75,05	10,12,20	67,62,85	8,76,09	6,82,01	1,67	1,92,41	2·5	..	3,30,80	..	1,38,39
	1936-37	**77,83,53**	**9,52,20**	**68,31,33**	**8,40,73**	**6,68,28**	**1,41**	**1,71,04**	**2·2**	..	**3,22,78**	..	**1,51,74**
Bombay, Baroda and Central India	1934-35	75,95,88	5,49,00	70,46,88	11,78,93	7,27,01	27,93	4,23,99	5·6	15,61‡	2,80,51	1,27,87	..
	1935-36	73,74,05	5,49,00	68,25,05	11,85,51	7,07,10	29,81	4,48,60	6·1	14,79‡	2,78,22	1,55,59	..
	1936-37	**73,77,60**	**5,49,00**	**68,28,60**	**12,50,05**	**7,16,74**	**27,16**	**5,06,15**	**6·9**	**16,52‡**	**2,73,68**	**2,15,95**	..
Madras and Southern Mahratta	1934-35	55,20,23	10,68,25	44,51,98	7,48,93	4,73,97	29,79	2,45,17	4·4	36,31	2,32,13	..	23,27
	1935-36	53,26,73	10,68,25	42,58,48	7,30,45	4,81,50	27,34	2,21,61	4·2	26,77	2,29,01	..	34,17
	1936-37	**53,30,57**	**10,68,25**	**42,62,32**	**7,42,88**	**4,69,50**	**31,45**	**2,41,93**	**4·5**	**19,39**	**2,25,09**	..	**2,55**
South Indian	1934-35	45,25,00	6,35,81‖	38,89,19	5,50,82	3,67,79	8,97	1,74,06	3·8	6,22‡	1,77,47	..	9,63
	1935-36	45,46,66	6,35,81‖	39,10,85	5,28,42	3,70,76	7,11	1,50,55	3·3	6,62‡	1,75,55	..	31,62
	1936-37	**45,67,54**	**6,35,81‖**	**39,31,73**	**5,36,33**	**3,64,81**	**7,12**	**1,64,40**	**3·6**	**3,61‡**	**1,71,42**	..	**10,63**
Other railways	1934-35	42,64,12	5,89,46	36,74,66	6,52,22	3,80,31	1,39,06	1,32,85	3·1	2,98	1,68,32	..	38,45
	1935-36	43,05,98	5,20,91	37,85,07	6,53,58	3,95,58	1,44,45	1,13,55	2·6	2,77	1,66,99	..	56,21
	1936-37	**42,99,18**	**4,21,87**	**38,77,31**	**6,85,03**	**3,98,68**	**1,58,19**	**1,28,16**	**2·9**	**2,91**	**1,66,15**	..	**40,90**
Suspense	1934-35	..	..	..	..	4	..	—4	..	..	..	..	4
	1935-36	..	..	..	..	—6	..	6	..	..	..	6	..
	1936-37	..	..	..	..	..	..	..	..	..	..	..	..

Adjustments :—													
Net result of adjustment of credits on account of released materials and expenditure on non-wasting assets of company-managed railways under Repairs and Maintenance.	1934-35	..	..	..	..	3,16	..	—3,16	..	..	..	..	3,16
	1935-36	..	..	..	..	3,43	..	—3,43	..	..	..	..	3,43
	1936-37	..	..	..	..	..	..	..	..	..	..	..	..
Interest on Depreciation and Reserve Fund balances.	1934-35	..	..	..	48,15	..	..	48,15	..	..	..	48,15	..
	1935-36	..	..	..	47,97	..	..	47,97	..	..	..	47,97	..
	1936-37	..	..	..	**61,81**	..	..	**61,81**	..	..	..	**61,81**	..
Net Miscellaneous Receipts and Charges not attributable to any one Railway.	1934-35	..	..	..	..	..	..	..	..	..	..	..	9,44*
	1935-36	..	..	..	..	..	..	..	..	..	..	..	4,06*
	1936-37	..	..	..	..	..	..	..	..	..	..	..	**13,71***
Total (Central)	1934-35	7,95,29,55	39,66,86	7,55,62,69	96,86,68	66,65,32	2,76,99	27,44,37	3·5	61,12	31,80,06	..	5,06,25
	1935-36	7,89,02,03	38,98,31	7,50,03,72	97,59,55	66,80,27	2,84,67	27,94,61	3·5	50,95	31,39,00	..	3,99,40
	1936-37	**7,88,87,86**	**37,39,27**	**7,51,48,59**	**1,01,64,07**	**66,04,29**	**3,01,74**	**32,58,04**	**4·1**	**42,43**	**30,81,31**	**1,20,59**	..
Provincial Railways	1934-35	14,61	..	14,61	(a)1,14	..	..	1,14	..	..	51	63	..
	1935-36	14,61	..	14,61	(a)1,23	..	..	1,23	..	..	51	72	..
	1936-37	**14,61**	..	**14,61**	**(a)1,41**	..	..	**1,41**	..	..	**50**	**91**	..
Grand Total (Central and Provincial)	1934-35	7,95,44,16	39,66,86	7,55,77,30	96,87,82	66,65,32	2,76,99	27,45,51	3·5	61,12	31,80,57	..	5,05,62
	1935-36	7,89,16,64	38,98,31	7,50,18,33	97,60,78	66,80,27	2,84,67	27,95,84	3·5	50,95	31,39,51	..	3,98,68
	1936-37	**7,89,02,47**	**37,39,27**	**7,51,63,20**	**1,01,65,48**	**66,04,29**	**3,01,74**	**32,59,45**	**4·1**	**42,43**	**30,81,81**	**1,21,50**	..
North Western (Commercial)	1934-35	1,12,77,78	..	1,12,77,78	14,64,11	10,43,91	28,81	3,91,39	3·5	..	4,61,04	..	69,65
	1935-36	1,12,92,24	..	1,12,92,24	15,00,43	9,92,46	29,82	4,78,15	4·2	..	4,53,75	24,40	..
	1936-37	**1,13,04,69**	..	**1,13,04,69**	**16,16,79**	**9,89,06**	**28,15**	**5,99,58**	**5·3**	..	**4,46,13**	**1,53,45**	..
Non-Commercial (Strategic) (North Western and Aden Railways).	1934-35	34,06,54	..	34,06,54	1,26,70	1,89,79	..	—63,09	—1·9	..	1,40,23	..	2,03,32
	1935-36	34,00,68	..	34,00,68	1,34,69	(c)2,08,88	..	(c)—74,19	—2·2	..	1,37,52	..	2,11,71
	1936-37	**33,79,67**	..	**33,79,67**	**1,37,31**	**1,99,95**	..	**—62,64**	**—1·9**	..	**1,33,79**	..	**1,96,43**

‡ Includes payments to Durbars—

	1934-35.	1935-36.	1936-37.
Jaipur Durbar	6,72	6,70	7,05
Palanpur Durbar	10	..	..
Travancore Durbar	69	..	..
* Includes recoveries from Travancore Durbar	10	38	1,08

‖ Includes capital expenditure on Tinnevelly Quilon (Indian State Section).

(a) Represent figures on account of subsidized Companies.

(b) Figures of Capital at charge at end of 1934-35 include sterling liabilities involved in the purchase of Railways converted at the average rate of the year in which the liabilities were originally incurred and those at end of 1935-36 and 1936-37 at 1s. 6d. to the rupee.

(c) Includes Aden Railway :—

Column 7 2,06
" 9 . . . . —2,06

III.—*General results of working of all Indian Railways.*

29. Traffic and mileage.—The more important statistical figures of traffic on all Indian Railways are summarised in the table below :—

Particulars.	Year.	Class I Railways.	Other Railways.	Total of all Railways.
(i) Total route mileage.	1932-33	38,550	4,394	42,944
	1933-34	38,298	4,655	42,953
	1934-35	38,294	4,727	43,021
	1935-36	38,367	4,751	43,118
	1936-37	**38,185**	**4,943**	**43,128**
(ii) Number of passengers originating (in thousands).	1932-33	471,689	30,206	501,895
	1933-34	456,618	32,995	489,613
	1934-35	463,011	33,580	496,591
	1935-36	469,424	34,267	503,691
	1936-37	**475,016**	**34,903**	**509,919**
(iii) Number of passenger miles (in thousands).	1932-33	16,890,772	715,682	17,606,454
	1933-34	16,384,713	765,667	17,150,380
	1934-35	16,987,135	777,754	17,764,889
	1935-36	17,353,294	801,055*	18,154,349*
	1936-37	**17,436,677**	**833,982**	**18,270,659**
(iv) Tons originating (in thousands).	1932-33	67,163	3,438	70,601
	1933-34	72,951	3,562	76,513
	1934-35	80,649	3,854	84,503
	1935-36	82,737	4,195	86,932
	1936-37	**82,301**	**3,962**	**86,263**
(v) Number of ton miles (in thousands).	1932-33	16,978,015	224,526	17,202,541
	1933-34	18,459,656	247,161	18,706,817
	1934-35	20,090,588	261,047	20,351,635
	1935-36	20,295,579	258,105	20,553,684
	1936-37	**21,172,091**	**263,367**	**21,435,458**

* Revised figures.

30. Analysis of earnings.—The total earnings of all railways, including those with which the Government of India are not directly concerned, amounted to Rs. 108·07 crores, of which Rs. 69·80 crores or 64·6 per cent. were from goods traffic, Rs. 30·33 crores or 28·1 per cent. from passenger traffic and Rs. 7·94 crores or 7·3 per cent. from parcels, luggage and other miscellaneous items.

31. *Passenger earnings.*—Passenger earnings showed a decrease of about 1 per cent. from Rs. 30·56 to 30·33 crores. The following table shows the

General view of the New Krishna Bridge.

numbers of and earnings from passengers separately for each class for the four years previous to the war and for the last seven years. Graphs are also inserted showing the number of passengers carried and of passenger miles by classes from 1923-24 :—

Year.	No. of passengers carried (in thousands).						Earnings from passengers (in thousands of rupees).					
	1st class.	2nd class.	Inter-mediate class.	3rd class.	Season and Vendor's tickets.	Total.	1st class.	2nd class.	Inter-mediate class.	3rd class.	Season and Vendor's tickets.	Total.
1910 .	685	2,784	10,702	315,839	24,341	354,351	58,82	77,23	94,99	14,65,16	15,85	17,12,05
1911 .	703	2,947	11,409	331,055	25,687	371,801	66,38	83,83	1,08,88	15,73,15	16,85	18,49,09
1912 .	700	3,030	11,508	356,789	26,810	397,837	62,90	83,31	91,37	17,01,35	17,55	19,56,48
1913-14 .	715	3,253	12,000	390,412	30,114	436,494	68,94	88,70	1,03,48	18,37,03	19,36	21,17,51
1930-31 .	670	8,089	16,189	550,879	*	575,827	94,06	1,70,20	1,41,34	30,24,15	*	34,29,75
1931-32 .	508	5,937	12,354	487,037	*	505,836	83,34	1,53,71	1,22,98	27,75,41	*	31,35,44
1932-33 .	429	5,278	10,871	485,317	*	501,895	77,95	1,47,44	1,15,14	27,91,67†	*	31,32,20
1933-34 .	421	5,050	10,557	473,585	*	489,613	76,07	1,42,24	1,11,54	26,79,09	*	30,10,90‡
1934-35 .	406	4,818	10,316	481,051	*	496,591	76,83	1,41,48	1,11,92	27,04,74	*	30,34,97
1935-36 .	384	4,763	10,469	488,075	*	503,691	77,96	1,45,80	1,11,35	27,20,57	*	30,55,68
1936-37 .	409	4,590	11,085	493,835	*	509,919	81,15	1,47,05	1,14,54	26,90,46	*	30,33,20

* The number of season and vendor's tickets and their earnings included under the respective classes; the former at the rate of 50 single journeys per month.

NOTE.—In pre-war reports the sum of the numbers of passengers carried on each separate railway was shown as the total number of passengers carried on all railways. Passengers travelling over two or more railways or two or more gauges of the same railway were thus counted as two or more passengers. The actual number of passengers carried on all railways is in fact the same as the number of passengers originating and this figure has been adopted for "number of passengers carried" in the reports from 1923-24 onwards. As the number of passengers originating is not available prior to 1923-24 the figures of pre-war years have been modified.

† Revised figures.

‡ Includes credit of 1,94 received from the East Indian Railway on account of passengers carried over the Delhi Ghaziabad section for the period April 1925 to May 1931 : details under different classes are not available.

During 1936-37, 4 million more passengers were carried on Class I Railways than in 1935-36 but passenger earnings decreased by Rs. 27 lakhs. The following statement shows the variations on each railway :—

Railway system.	Variations in the number of passengers carried as compared with 1935-36.	Variations in earnings as compared with 1935-36.
	No.	Rs.
Assam Bengal	+962,900	+4,96,000
Bengal and North-Western . .	+178,600	-42,000
Bengal Nagpur	-792,000	-8,54,000
Bombay, Baroda and Central India	-1,212,400	-11,40,000
Burma	-286,400	+4,43,000
Eastern Bengal	+2,505,400	+5,18,000
East Indian	-1,592,400	-15,22,000
Great Indian Peninsula . .	+1,166,800	-6,24,000
Jodhpur	+343,200	+1,23,000
Madras and Southern Mahratta .	+107,600	-6,93,000
H. E. H. the Nizam's State . .	-266,900	-35,000
North Western	+1,163,500	+11,38,000
Rohilkund and Kumaon . .	+27,700	-16,000
South Indian	+1,435,000	-4,45,000
Total .	+3,740,600	-26,53,000

It will be observed from the statement that inspite of an increase in the number of passengers carried the earnings decreased on certain Railways. The following are considered to be the reasons for the variations:—

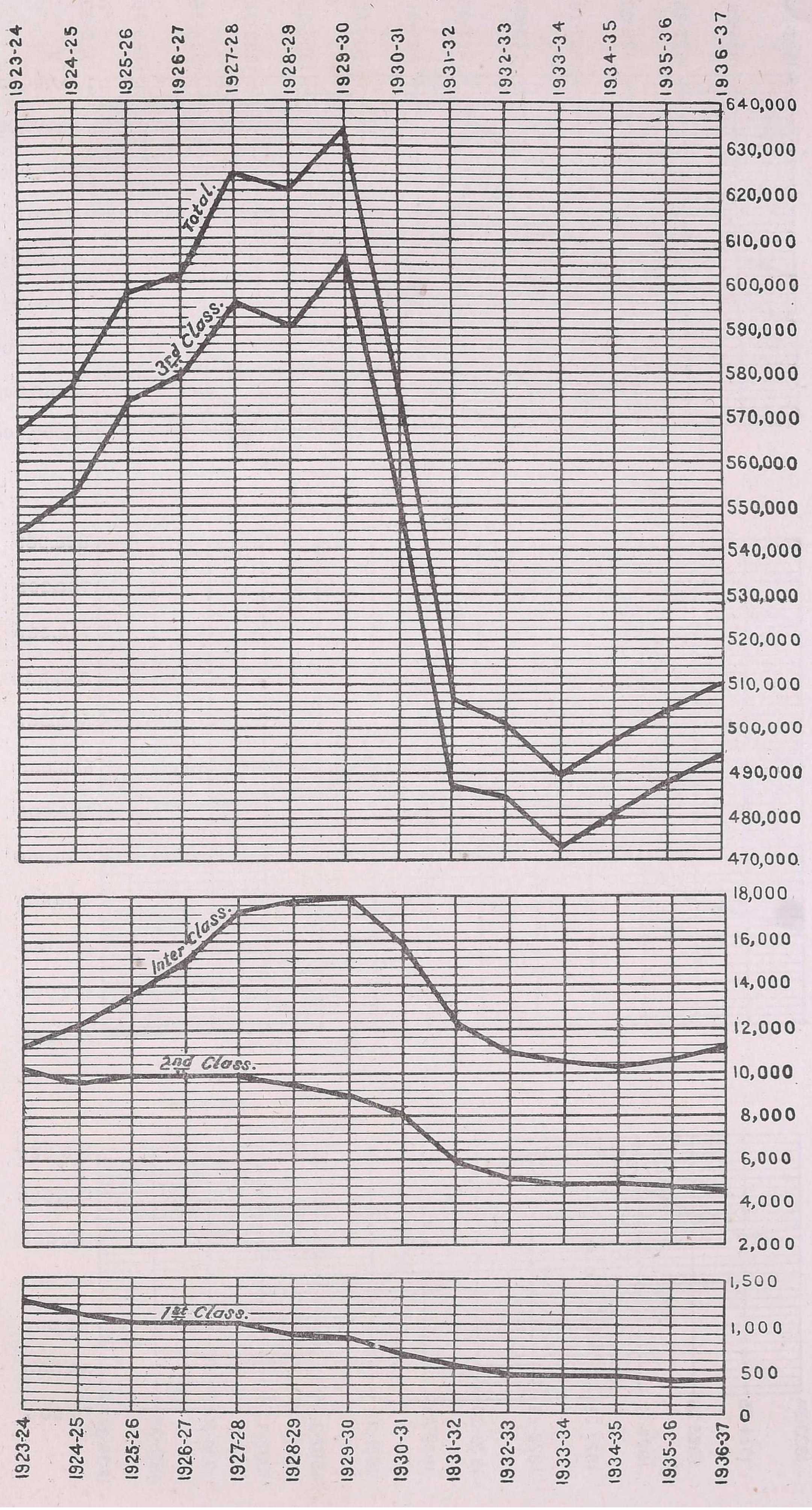
Bengal and North-Western Railway.	*Increase in passengers decrease in receipts*—due to the basis of fares for 3rd class passengers over 350 miles having been reduced from 1st January 1937 and decrease in average distance travelled.
Burma Railways . .	*Decrease in passengers increase in receipts*—due to increase in the average lead and to enhanced fares from 1st January 1936.
Great Indian Peninsula Railway.	*Increase in passengers decrease in receipts*—due to the introduction of cheap 3rd class single and return journey tickets, ordinary tickets being made available by mail and quotation of cheap intermediate class fares.
Madras and Southern Mahratta Railway.	*Increase in passengers decrease in receipts*—due to cheaper fare for 3rd class passengers having been introduced on various sections of the line to counteract bus competition.
Rohilkund and Kumaon Railway.	*Increase in passengers decrease in receipts*—due to introduction of intermediate and 3rd class concession tickets over important sections and return 3rd class tickets at 1½ fares to divert *Mela* passengers coming from Bombay, Baroda and Central India Railway *viâ* Kasganj from road to rail from the latter station.
South Indian Railway . .	*Increase in passengers decrease in receipts*—due to the issue of concession and reduced fare tickets for 3rd class passengers with a view to afford relief to agricultural population affected by the general economic depression and to counteract motor bus competition.

32. *Goods earnings.*—The earnings from goods traffic on all railways increased by 511 lakhs: the improvement being chiefly under cotton raw and manufactured, sugar refined and unrefined, oilseeds, gram and pulses, wheat, jute raw, fuel, rice and petrol.

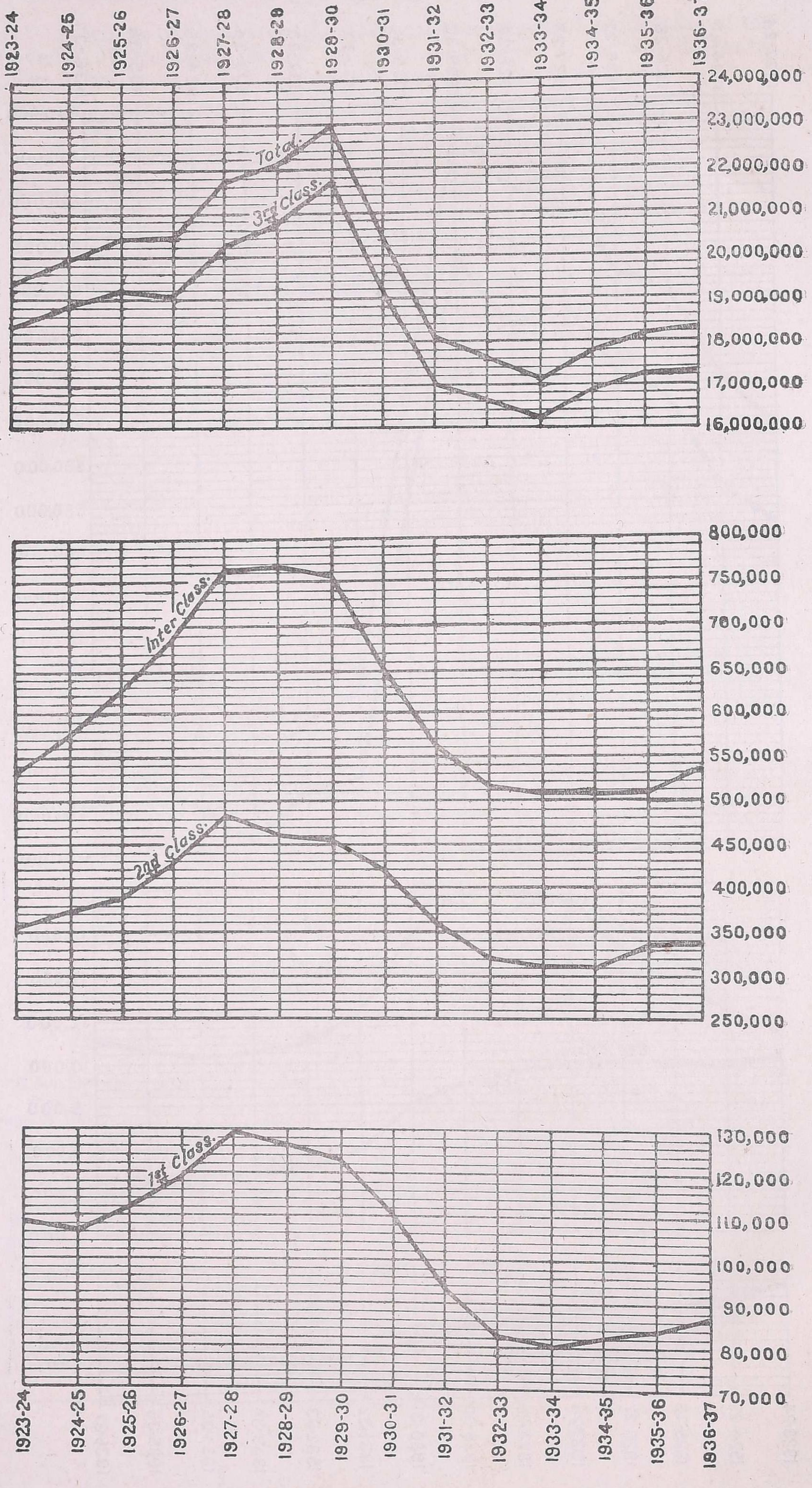
The tonnage of, and earnings from the principal commodities carried by Class I Railways during 1936-37 as compared with the preceding year, are shown in the statement below. Apart from the main increases, mentioned above, there were increases under Kerosene oil, Salt and Fodder.

Commodity.	1935-36.		1936-37.		Increase + Decrease — in earnings. Rs. (in lakhs).
	No. of tons originating (in millions).	Rs. (in crores).	No. of tons originating (in millions).	Rs. (in crores).	
Increases.					
Cotton raw and manufactured.	1·84	6·28	**2·15**	**7·13**	+85
Sugar refined and unrefined.	0·87	1·58	**1·16**	**2·30**	+72
Oilseeds . . .	2·12	2·78	**2·66**	**3·32**	+54
Gram and pulse and other grains.	2·50	3·08	**2·72**	**3·51**	+43
Wheat . . .	1·72	2·12	**1·82**	**2·48**	+36
Jute, raw . .	0·85	0·96	**1·10**	**1·30**	+34
Fuel for public and foreign railways.	20·13	10·13	**20·27**	**10·45**	+32
Rice . . .	4·28	3·78	**4·41**	**4·05**	+27
Petrol . . .	0·25	0·92	**0·29**	**1·14**	+22
Kerosene oil . .	0·76	1·49	**0·80**	**1·64**	+15
Salt	1·33	1·76	**1·43**	**1·87**	+11

NUMBER OF PASSENGERS CARRIED ON INDIAN RAILWAYS.
(IN THOUSANDS).



PASSENGER MILES
INDIAN RAILWAYS.
(IN THOUSANDS).



Commodity.	1935-36. No. of tons originating (in millions).	1935-36. Rs. (in crores).	1936-37. No. of tons originating (in millions).	1936-37. Rs. (in crores).	Increase + Decrease — in earnings. Rs. (in lakhs).
Increases—concld.					
Fodder . . .	0·90	0·54	**0·98**	**0·64**	+10
Iron and Steel, wrought	1·43	2·57	**1·39**	**2·65**	+8
Military traffic . .	0·28	0·28	**0·36**	**0·33**	+5
Gur, Jaggery, Molasses	0·88	1·27	**1·01**	**1·31**	+4
Manures . . .	0·22	0·14	**0·26**	**0·18**	+4
Other commodities .	9·55	10·95	**9·70**	**11·62**	+67
Live stock . . .	0·16	0·52	**0·17**	**0·54**	+2
Marble and stone .	2·93	0·93	**2·55**	**0·94**	+1
Materials and stores on revenue account.	13·55	2·66	**12·40**	**2·67**	+1
Tobacco . . .	0·30	0·81	**0·31**	**0·82**	+1
Wood, unwrought .	1·35	0·88	**1·34**	**0·89**	+1
Decreases.					
Metallic ores . .	3·66	1·30	**3·35**	**1·16**	—14
Railway materials .	5·40	0·61	**4·26**	**0·52**	—9
Provisions . . .	1·19	2·96	**1·17**	**2·91**	—5
Fruits and Vegetables, fresh.	4·29	1·49	**4·24**	**1·48**	—1
TOTAL .	82·74	62·79	**82·30**	**67·85**	+506

33. Alterations in rates and fares.—*Passengers fares.*—(I) The following are some of the more important changes that were made during the year :—

(i) *Assam Bengal Railway.*—From 1st December 1936, a single upper class was adopted in place of the first and second class accommodation previously provided and the bases for the new first class fares compare as follows with those for the old first and second classes :—

Previous.	Pies per mile.	*Revised Upper Class.*	Pies per mile
1st class—			
1 to 300 miles .	30	All distances . . .	18
+301 miles and over .	16		
2nd class—			
1 to 300 miles .	15		
+301 miles and over .	9		

(ii) *Bombay, Baroda and Central India Railway.*—From 1st April 1936, the bases for first and second class fares were enhanced as follows :—

Previous.	Pies per mile.	*Revised.*	Pies per mile.
1st class—			
1 to 150 miles .	24	1 to 300 miles . .	24
+151 miles and over .	18	+301 miles and over .	18
2nd class—			
1 to 150 miles .	12	1 to 300 miles . .	12
+151 miles and over .	9	+301 miles and over .	9

(iii) *East Indian Railway.*—From 1st June 1936, the bases for third class fares were enhanced as follows :—

Previous.	Pies per mile.	*Revised.*	Pies per mile.
1 to 50 miles . .	$3\frac{1}{2}$	1 to 50 miles . .	$3\frac{1}{2}$
+51 to 300 ,, . .	$2\frac{3}{4}$	+51 to 300 ,, . .	3
+301 miles and over .	$1\frac{3}{4}$	+301 miles and over .	2

(iv) *Eastern Bengal Railway.*—From 1st June 1936, the bases for intermediate class fares were altered, as follows :—

Previous.	Pies per mile.	*Revised.*	Pies per mile.
1 to 150 miles . .	6	1 to 300 miles . .	5
+151 miles and over .	$4\frac{1}{2}$	+301 miles and over .	$4\frac{1}{2}$

(v) *Great Indian Peninsula Railway.*—From 1st April 1936, the bases for first, second and third class fares were altered, as follows :—

Previous.	Pies per mile.	*Revised.*	Pies per mile.
1st class—			
1 to 150 miles .	24	1 to 300 miles . .	24
+151 miles and over .	18	+301 miles and over .	18
2nd class—			
1 to 150 miles .	12	1 to 300 miles . .	12
+151 miles and over .	9	+301 miles and over .	9
3rd class—By mail or express in through booking—			
1 to 50 miles . .	4	1 to 50 miles . .	5
+51 miles and over .	3	+51 miles and over .	3

(vi) *Jodhpur Railway.*—From 1st June 1936, the bases for first and second class fares were enhanced as follows :—

Previous.	Pies per mile.	*Revised.*	Pies per mile.
1st class—			
1 to 150 miles .	24	1 to 300 miles . .	24
+151 miles and over .	18	+301 miles and over .	18
2nd class—			
1 to 150 miles .	12	1 to 300 miles . .	12
+151 miles and over .	9	+301 miles and over .	9

(II) During the last Christmas and Easter holidays the Great Indian Peninsula, Madras and Southern Mahratta and South Indian Railways, issued 'Travel as you like' and 'Zone' tickets for third class passengers at reduced lumpsum fares, available for unlimited travel over the whole railway, or the Zone, as the case may be, for a period of 15 days from the date of issue as detailed below :—

(a) *Great Indian Peninsula Railway.*—(i) For this purpose the system (excluding narrow gauge sections) was divided into 4 Zones each covering a mileage ranging between 910 and 990 miles. For travel over each Zone the fare was Rs. 7-8 per head for adults and Rs. 4 for children as against about Rs. 15 which is the ordinary fare for the journey for the average entire mileage covered by each Zone.

(ii) *Travel as you like tickets.*—These tickets were available over the whole railway (except narrow gauge sections) at Rs. 27-8 per head for adults and Rs. 15 for children.

(b) *Madras and Southern Mahratta and South Indian Railways.*—(i) *Zone Tickets* (*Madras and Southern Mahratta Railway*).—The system was divided into three sections, the total mileage of each of these being 1,020, 938 and 972 miles. The fare charged for each Zone was Rs. 10 per head for adults and Rs. 5 for children, the single journey fare for an average of 990 miles being Rs. 18-13 by mail and Rs. 14-1 by ordinary train.

(ii) *Travel as you like tickets.*—These tickets were available over the whole of each of these Railways at Rs. 12-8 per head for adults and Rs. 6-4 for children.

Goods Traffic.—The following are some of the more important changes made :—

Coal.—(i) *East Indian Railway.*—From 1st April 1936, a terminal charge of two annas per ton was notified to be levied at the receiving end in local booking, except in the case of traffic to Howrah in which case a receiving end terminal charge of 0-4-6 per ton was already being levied.

(ii) *Great Indian Peninsula Railway.*—From 1st May 1936, and again from 1st January 1937, rates for traffic booked from Great Indian Peninsula Railway colliery stations situated in the Pench and Chanda Valleys and from *viâ* Parasia (for traffic from Pench Valley Colliery Stations on the Bengal Nagpur Railway), were altered as follows :—

	Pie per maund per mile.
(a) *Prior to 1st May 1936*—	
(i) For traffic up to 200 miles	0·165
(ii) For traffic over 200 miles—	
1 to 300 miles	0·100
+301 to 500 ,, ...	0·066
+501 miles and over	0·050
(b) *From 1st May 1936*—	
(i) For traffic up to 200 miles	0·165
(ii) For traffic over 200 miles—	
1 to 300 miles	0·110
+301 miles and over	0·050
(c) *From 1st January 1937*—	
(i) For traffic up to 250 miles—	
1 to 200 miles	0·165
+201 to 250 ,, ...	0·130
(ii) For traffic from 251 to 400 miles—	
1 to 300 miles	0·110
+301 to 400 ,, ...	0·050
(iii) For traffic over 400 miles—	
1 to 200 miles	0·150
+201 to 400 ,, ...	0·060
+401 miles and over	0·050

The scale from the Central Provinces Collieries in force from 1st January 1937, is the same as the Bengal coal scale except for distances 251 to 400 miles for which the special Central Provinces coal scale has, however, been continued at the request of the Central Province and Berar Mining Association supported by the Central Provinces Government as a temporary measure until the Railway Rates Advisory Committee have had an opportunity of examining the case which the Central Provinces and Berar Mining

Association undertook to submit in justification of the retention of the present rates.

Manures.—Over the Great Indian Peninsula Railway (from 1st April 1936) and over the Bombay, Baroda and Central India Railway (from 1st May 1936), the previous basis of charge for traffic in wagon loads, which was 1/10th pie per maund per mile was enhanced to 0·14 pie per maund per mile.

Wheat.—A rebate of 25 per cent. of the freight rates over the North Western Railway for wheat exported overseas, west of Aden *viâ* Karachi was continued during the year. From 30th November 1936, a rebate of 25 per cent. of the freight rates was also allowed over the North Western Railway for wheat exported overseas east of Singapore *viâ* Karachi.

Cattle.—With a view to encourage the return of dry cows from Calcutta to the grazing areas,

(*a*) a rate of six annas per 4-wheeled vehicle per mile was introduced with effect from 17th July 1936, from any North Western Railway station to Howrah: the return journey from Howrah to the original booking station at any time within a period of nine months being free.

(*b*) From 1st November 1936, a rate of two annas per 4-wheeled vehicle per mile was introduced from Howrah applicable:—

(i) over the East Indian and North Western Railways—when consigned to any station on the North Western Railway,

(ii) over the East Indian Railway—when consigned to any station on the Great Indian Peninsula and Bombay, Baroda and Central India Railways by certain junctions.

Simplification of Classification.—With a view to providing a more suitable classification for goods traffic with effect from 1st May 1936, the number of classes was increased from 10 to 16. The classification in force from May 1936, and that previously in force compares as follows:—

Prior to May 1936. Class.	Pie per maund per mile.	*From May 1936.* Class.	Pie per maund per mile.
1	·38	1	·38
2	·42	2	·42
3	·58	2-A	·46
4	·62	2-B	·50
5	·77	2-C	·54
6	·83	3	·58
7	·96	4	·62
8	1·04	4-A	·67
9	1·25	4-B	·72
10	1·87	5	·77
		6	·83
		6-A	·89
		7	·96
		8	1·04
		9	1·25
		10	1·87

34. Compensation claims for goods and parcels.—In previous reports the only information given in regard to claims statistics was the amount paid on account of compensation for loss or damage. This year information has been prepared in greater detail and the following statements show for the Class I Railways (except Jodhpur):—

(1) the number of claims in respect to goods or parcels damaged or lost, received and disposed of (Statement A);

(2) the number and value of claims paid in respect of goods or parcels lost or damaged under main causes (Statement B);

(3) the number of court cases in respect of goods or parcels lost, damaged or delayed and their disposal (Statement C).

STATEMENT A.

Item No.	Particulars.	1936-37. A. B.	B. & N.-W.	B. N.	B., B. & C. I.	Burma.	E. B.	E. I.	G. I. P.	M. & S. M.	N. S.	N. W.	R. & K.	S. I.
1	Number of cases involving compensation for goods or parcels lost, damaged, or delayed carried over as unsettled at the close of the preceding year .	68	392	338	575	47	358	817	384	334	91	879	55	113
2	Number of claims received (and re-opened) for compensation on account of goods or parcels lost, damaged, or delayed during the current year . .	690	2,051	2,701	6,898	826	3,123	8,836	6,354	3,027	679	7,776	537	1,673
3	Number of claims referred to in items 1 and 2 settled during the year . . .	647	1,863	2,350	6,838	816	2,876	8,636	6,018	3,106	615	7,851	509	1,656
4	Balance outstanding as unsettled at the close of the year . .	111	580	689	635	57	605	1,017	720	255	155	804	83	130
5	Net amount paid in compensation . Rs.	4,530	5,131	20,132	31,506	4,756	17,597	24,670	53,559	24,098	5,924	66,056	1,606	9,950
6	Percentage sum paid in compensation (item 5) bore to gross earnings.	0·04	0·002	0·02	0·04	0·01	0·05	0·02	0·05	0·03	0·03	0·05	0·03	0·02
7	Average time in days taken in settlement of claims shown under items 1 and 2 . .	53	86	60	23	28	42	53	36	28·5	67	50·4	80	25
8	Number of applications received for refunds on goods and parcels overcharged . .	2,815	3,025	3,787	10,087	1,742	7,845	21,589	4,006	4,551	1,655	10,312	640	7,182
9	Average time taken in settlement of claims shown under item 8. Days	60	102	45	39	24	78	102	75	32	74	25·3	82	21

STATEMENT B.

Item No.	Particulars.		1936-37. A. B.	B. & N.-W.	B. N.	B., B. & C. I.	Burma.	E. B.	E. I.	G. I. P.	M. & S. M.	N. S.	N. W.	R. & K.	S. I.
1	Claims paid on account of goods lost.	No.	49	306	..	1,329	123	220	1,735	720	106	111	158	60	408
		Value Rs.	1,944	4,247	..	6,750	2,098	3,832	40,177	5,262	1,784	1,290	2,599	501	3,059
2	Claims paid on account of goods stolen.	No.	72	23	580	133	50	31	1,189	31	43	11	943	18	15
		Value Rs.	924	1,527	8,496	1,735	1,756	1,105	15,136	758	2,053	250	11,095	1,350	226
3	Claims paid on account of goods damaged by wet.	No.	32	12	445	1,744	16	245	3,615	1,221	462	73	506	17	255
		Value Rs.	773	103	7,883	6,669	821	5,769	21,543	8,384	6,176	1,638	7,326	221	4,559
4	Claims paid on account of goods damaged by fire.	No.	..	..	..	..	..	..	3	5	19	..	6	..	1
		Value Rs.	..	..	..	..	..	..	2,433	3,493	2,373	..	495	..	12
5	Claims paid on account of goods damaged by breakage.	No.	25	6	..	22	13	..	43	65	22	5	1,178	6	15
		Value Rs.	640	69	..	472	275	..	3,102	854	113	152	20,528	184	144
6	Claims paid on aacount of parcels and luggage lost and stolen.	No.	33	..	..	58	22	254	348	*	39	24	286	12	43
		Value Rs.	366	..	..	564	359	1,959	7,658	*	825	204	3,769	227	531
7	Claims paid on account of other causes.	No.	28	102	320	1,334	144	413	350	9	1,102	31	2	35	92
		Value Rs.	666	1,652	11,745	12,356	2,354	6,797	8,939	92	13,956	677	42	627	1,419

* Included under items 1 and 2.

STATEMENT C.

Item No.	Particulars.	1936-37.												
		A. B.	B. & N.-W.	B. N.	B., B. & C. I.	Burma.	E. B.	E. I.	G. I. P.	M. & S. M.	N. S.	N. W.	R. & K.	S. I.
1	Number of suits filed in court (or pending from the previous year) for the recovery of compensation in respect to goods or parcels lost, damaged or delayed .	9	33	27	65	..	17	147	76	59	2	99	9	11
2	Number of such suits settled out of court .	4	10	5	6	..	7	26	15	8	1	20	..	1
3	Number of suits dismissed . . .	1	16	3	5	..	7	33	12	22	..	45	7	4
4	Number of suits decreed	..	2	1	3	..	1	16	5	4	1	5	1	1
5	Number of suits pending	4	5	18	51	..	2	72	44	25	..	29	1	5

CHAPTER III.

NEW CONSTRUCTION AND ENGINEERING WORKS.

35. Capital Expenditure.—At the end of March, 1937, the total capital at charge on all railways, including those under construction, amounted to Rs. 880·13 crores, of which Rs. 789·03 crores was capital at charge on State-owned Railways inclusive of premia paid in the purchase of Companies' lines. The remainder, Rs. 91·10 crores, represented capital raised by Indian States, Companies and District Boards.

The capital at charge of State-owned Railways is composed as follows :—

	£
Liability and debt incurred in purchase of Railways .	150,106,630
Less liability and debt cancelled by the operation of Annuities and Sinking Funds	– 29,284,941
Net amount outstanding	120,821,689*
	Rs. (omitting 000)
Direct expenditure by Government	6,27,78,90
The above sterling figure converted into rupees .	1,61,08,96*
Total .	7,88,87,86
Add Provincial Railways expenditure	14,61
Grand Total .	7,89,02,47

NOTE.—Excluding Rs. 34·69 crores for the Burma Railways the grand total for India alone amounts to Rs. 754·34 crores.

By far the greater portion of this amount, namely, Rs. 7,51,63,20,000 is Government Capital and only 1-20th or Rs. 37,39,27,000 is owned by Companies. These figures include Rs. 33·80 crores on account of capital expenditure to the end of March, 1937, on strategic lines.

The total capital outlay on all railways during 1936-37 was Rs. 1·01 crores, of which Rs. 0·28 crores were spent on State-owned Railways. The following statement shows how this outlay of Rs. 0·28 crores was distributed between open line works, rolling-stock and new line, similar figures being given for the previous four years and for 1913-14.

Year.	Open Lines.			New lines.	Grand Total.
	Works including Stores and general charges.	Rolling-stock.	Total.		
	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.
1913-14	9·30	7·31	16·61	1·86	18·47
1932-33	0·05	—0·55	—0·50	0·57	0·07
1933-34	—0·45	—1·82	—2·27	0·22	—2·05
1934-35	0·76	—0·69	0·07	0·18	0·25
1935-36	2·24	0·05	2·29	0·29	2·58
1936-37 (including Burma Railways).	1·08	—0·80	0·28	..	0·28
1936-37 (excluding Burma Railways).	1·16	—0·66	0·50	..	0·50

* £2,575,000 representing share capital of the Great Indian Peninsula Railway paid off during 1925-26 has been converted at the average rate of exchange for that year and the balance of £118,246,689 at the rate of 1*s*. 6*d*. to the rupee.

The distribution of the capital outlay in 1936-37 over the different state-owned lines is shown in the summary below :—

Railways.	Open Lines. Works, etc.	Open Lines. Rolling-stock.	Open Lines. Total.	New lines.	Grand Total.
	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.
Bengal Nagpur	0·14	—0·06	0·08	..	0·08
Bombay, Baroda and Central India	0·09	—0·05	0·04	..	0·04
Eastern Bengal	—0·06	—0·06	—0·12	..	—0·12
East Indian	0·39	0·05	0·44	—0·01	0·43
Great Indian Peninsula	—0·24	—0·13	—0·37	..	—0·37
Madras and Southern Mahratta	0·00	0·04	0·04	..	0·04
North Western	0·29	—0·45	—0·16	..	—0·16
South Indian	0·14	0·06	0·20	..	0·20
Other Indian Railways	0·41	—0·26	0·35	0·01	0·36
Burma	—0·08	—0·14	—0·22	..	—0·22
Total	1·08	—0·80	0·28	..	0·28

36. Lines opened during 1936-37.—12·50 miles of railways were opened to public traffic during the year and consisted of :—

Nil miles on the 5′ 6″ gauge.

12·50 miles on the 3′ 3⅜″ gauge.

Details regarding the sections opened are given below :—

Name of line.	Gauge.	Mileage.	Owner.	Working Agency.	Date of opening.
Kunkavav-Bagasra	3′ 3⅜″	12·50	Indian State Line	Gondal Railway	24th October 1936.

37. Lines sanctioned in 1936-37.—During the year under review sanction was accorded to the construction of only one new line 85·83 miles long, on the metre gauge. This is the Sadulpur-Rewari Railway, an enterprise of the Bikaner Government. The line will traverse portions of the Bikaner, Loharu, Patiala and Nabha States and the Gurgaon District of the Punjab, and is intended to develop an area rather thinly populated and at present unirrigated.

38. Lines under active construction on 31st March 1937.—At the end of the financial year 1936-37 the mileage of new lines under active construction was as follows :—

	Miles.
3′ 3⅜″ gauge	62·98
Total	62·98

The lines under active construction are given in the table below, which also show the construction agencies and the progress reached :—

Name of line.	Gauge.	Mileage actually under construction.	Working Agency.	* Progress of work (Proportion completed on 31st March 1937).
Anandapuram-Sagar . . .	3′ 3⅜″	16·22	Mysore Railway .	..
Prachi Road-Kodinar . . .	3′ 3⅜″	16·10	Gaekwar's Baroda State Railway.	·75
Sasangir-Visavadar . . .	3′ 3⅜″	18·62	Junagad State Railway.	·80
Jankampet-Bodhan . . .	3′ 3⅜″	12·04	Nizam's State Railway.	..
TOTAL .	..	62·98		

* ·30 signifies that 3/10th of the work has been done.
·50 signifies that half the work has been done.
1·00 signifies completion of the work.

39. Surveys.—Expenditure on Surveys proper during the year was kept down to the minimum mainly because the prospect of newly projected lines proving remunerative under present day conditions, appeared remote. Survey work was, therefore, practically limited to a few areas which were devoid of railway communication or where a railway extension appeared to hold out hopes of a reasonable return on outlay.

The most notable among those sanctioned were an engineering reconnaissance and a traffic survey for an extension of the Bankura-Damodar River Railway from Sehara Bazar to Burdwan, with the object of improving the financial position of the existing line, and a final location survey for a metre gauge railway from Khadro, to serve the Sugar industries at Pritamabad. The North Western Railway Administration also undertook the survey and investigation of a line from Jammu to Akhnoor, about 20 miles in length, on behalf of the Kashmere State, who have a scheme for transporting timber and coal by rail from Akhnoor and to make that station an industrial centre for the north western part of the State.

The South Indian Railway Administration similarly undertook a survey on behalf of the Cochin Government in connection with the proposed realignment of the line between Idapalli and Ernakulam. The actual survey work will, however, be carried out early in 1937-38.

On the Eastern Bengal Railway approval was accorded to the investigation of certain alternative proposals in the area at present served by the Krishnagar-Nawadwip Ghat Light Railway in order to arrive at a scheme which would best serve the interests of the pilgrim and general passenger traffic in the area, and obviate if possible the loss at which railway communication in this area is at present maintained.

In addition to the above, a certain amount of work was done in connection with the re-examination of the traffic and financial prospects of projects which had been surveyed in previous years, with a view to bring them up to date and so enable a decision being come to as to whether a *primâ facie* case existed to justify expenditure on further investigation. As a result of such examination, it was decided to abandon several projects, notably the Harpalpur-Silon-Damoh, Harpalpur-Silon-Katni and the Muttra-Aligarh Railway projects.

40. Important lines under construction.—The following is a brief account of the lines which were under construction during the year :—

(i) *Anandapuram-Sagar Railway.*—A description of this line which is being constructed by the Mysore Government to develop a tract of country rich in forest produce and minerals, appeared in the previous year's report. Construction work is in progress. It is expected that the line will be opened to all kinds of traffic about February, 1938.

(ii) *Prachi Road-Kodinar Railway.*—This line was described in the report for 1934-35. Though commenced in January, 1935, progress in construction has been slow due partly to delay in receipt of permanent way materials, but mainly on account of the bad health of the construction staff due to malaria. The line has only been three-fourths completed and it is not expected that it can be opened for traffic before January, 1938.

(iii) *Talala-Visavadar Railway.*—It was pointed out last year that the 18·62 miles section of this railway from Sasangir to Visavadar lies in difficult country. Good progress was, however, maintained in the construction work and well over three-quarters of the work completed during the year. It is anticipated that the line will be opened for traffic in October, 1937.

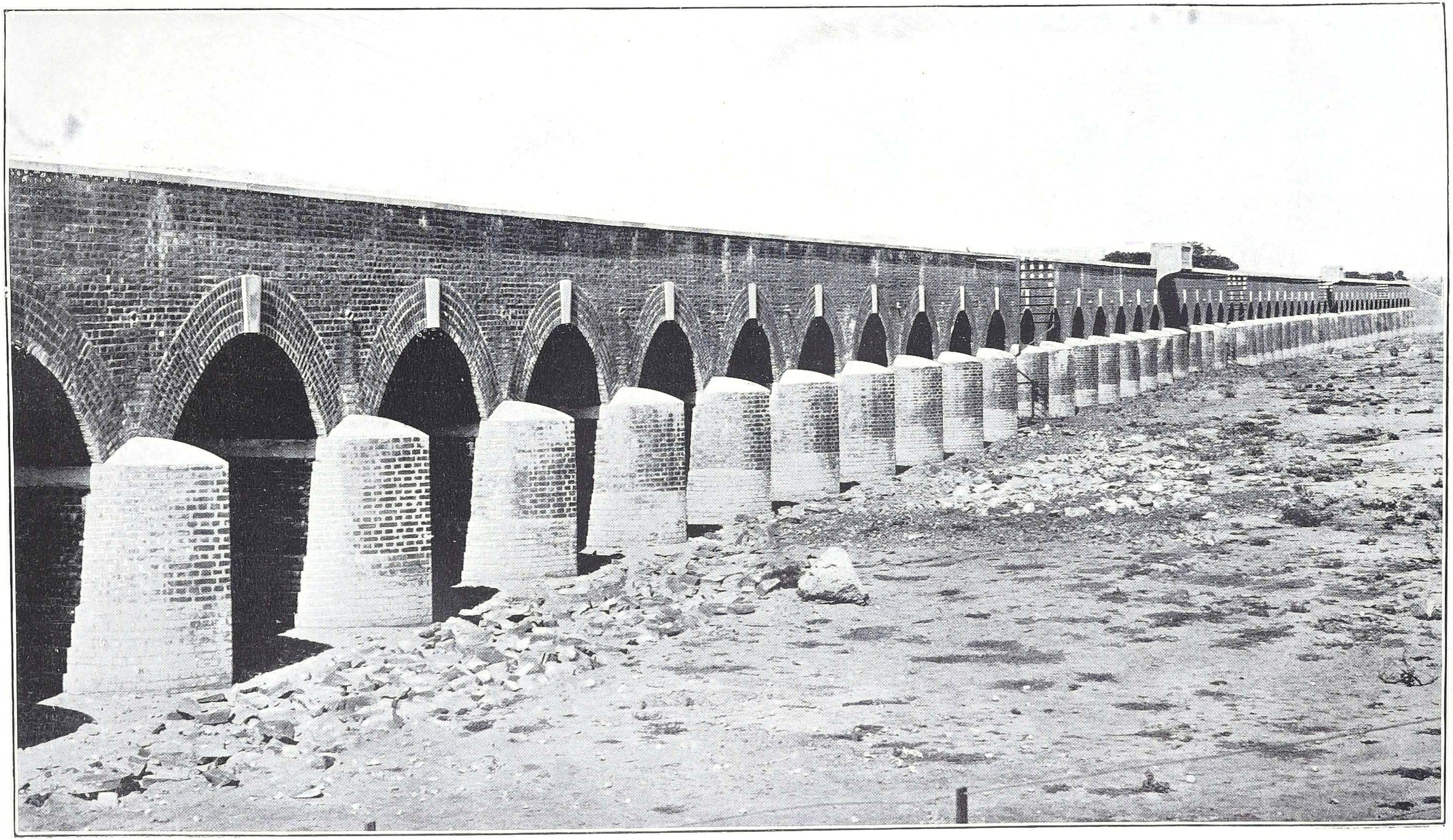
(iv) *Jankampet-Budaon Railway.*—The construction of this metre gauge line, about 12 miles long, was commenced in August, 1936, by His Exalted Highness the Nizam's Government primarily as a siding to serve a sugar factory at Budaon and to assist in the transport of machinery, etc., to the factory. It is, however, being constructed to a standard suitable for the eventual carriage of passenger traffic, and the work is being pushed on rapidly with a view to having the line ready for opening early in the coming financial year.

41. Important lines opened during 1936-37.—Only one new line was opened for traffic during the year, namely, the Kunkavav-Bagasra Railway about 12½ miles long, which was sanctioned in December, 1935, for construction by the Gondal Durbar. It will serve a fertile and well cultivated tract of land and afford railway communication to a town which has clamoured for it for over a quarter of a century.

42. Important New Works.—(i) *Meghna Bridge—Assam Bengal Railway.*—Mention of this project appears in previous years' reports. Commenced in November, 1935, it has been pushed on steadily since and during the year under review excellent progress was made with the work, all anticipated difficulties in caisson sinking in depths of water up to 65 feet being successfully overcome, and all well sinking completed. The contract for the supply of the steel-work in girders was let in India and as deliveries were very punctual and satisfactory nearly the whole of the steelwork reached the bridge site by the end of the year and good progress was made also with girder assembly. It is hoped that the bridge with its approaches and the new stations at Ashuganj and Bhairab will be opened for all classes of traffic early in December, 1937.

(ii) *Borivli-Virar Electrification—Bombay, Baroda and Central India Railway.*—This scheme was also described in last year's report as one intended to eliminate a change of trains at Borivli for passengers and bazar supplies and to reduce the time in the journey between Bombay and Virar. The work was completed and the Electric train service extended to Virar on the 1st September, 1936, the steam shuttle trains running between Borivli and Virar being suspended from the same date.

43. Open Line Improvements.—(i) *Gorai Bridge—Eastern Bengal Railway.*—The Gorai Bridge on the Poradaha-Goalundo Section of the Eastern Bengal Railway (7 spans of 180′ girders) was built in 1870, and as the girders had become weak and distorted entailing severe restrictions to train services and also in the use of modern locomotives and rolling stock, it was found necessary to consider their renewal. At first, with the prospect of the Goalundo Branch attaining the importance of a through route to Eastern Bengal in conjunction with the proposed Dacca-Aricha line, it was proposed entirely to rebuild the Gorai Bridge to modern standards at a cost of about Rs. 70 lakhs. With the abandonment of the Dacca-Aricha project, however, the bridge ceased to be of major importance and a modified scheme was, therefore, approved in September, 1936, namely, to renew only the girders and to strengthen the original piers, at a cost of Rs. 12·70 lakhs. Though urgent, the work could not be commenced till November owing to an abnormal late rise in the river level. Three spans were, however, renewed during the year, leaving four to be dealt with in 1937-38.



Sone Flood Opening-Bridge (55-12′ arches) at mile 357½ on the main line.

(ii) *Hardwar Station—East Indian Railway.*—As the facilities available at this important place of pilgrimage were inadequate and had to be augmented by expensive temporary arrangements on the occasion of large melas, certain improvements were taken in hand during the year, after consultation with the Hardwar Improvement Advisory Committee and the President of the Servants of India Society. The works undertaken aimed at the immediate provision of better accommodation for the pilgrims and of easier access to trains, but are merely forerunners to a larger improvement scheme to be carried out in 1937-38, which when completed will convert Hardwar into a first class station with an up to date station building, platforms 1,000′ long and 40′ wide, and a full complement of shelters, exits, waiting and refreshment rooms, vendors' stalls, and complete lighting and sanitary arrangements.

(iii) *Howrah Station—East Indian Railway.*—From time to time complaints were being received from the travelling public regarding the very inconvenient arrangements at the Howrah Station for the booking and entraining of passengers. Much of this inconvenience was due to the congestion caused by the faulty location of the booking offices which necessitated cross movements in the circulating areas both outside and inside the station building. Remedial measures, though considered, could not be put in hand pending a decision on the layout of the approaches to the station from the New Howrah Bridge and of the necessary parking arrangements for vehicles. With the fixing of the site for the new bridge, however, the main difficulty ceased to be operative and arrangements were put in hand to remove the drawbacks complained of. The main features of the scheme are a transfer of the waiting halls, vendors' stalls, booking offices and latrines for third class passengers to the north wing of the station building which is the direction from which most of these passengers hail, and the extension of the North Concourse to allow freer movement in what will be the main third class area. The rest of the alterations are incidental to the main changes mentioned. It is anticipated that these re-arrangements will, in addition to removing the inconveniences complained of, also effect an appreciable saving in working expenses.

(iv) *Pollachi Junction Remodelling—South Indian Railway.*—This junction station, which was purchased from its original owners the Coimbatore District Board, has been steadily gaining in importance with the opening, first of the Dindigul-Pollachi Railway and later of the branch to Palghat, and is now not only a busy three-way junction, but also the goods classification yard for the three sections of railway meeting at that point. The facilities available at the station were quite inadequate to cope with the traffic it was called upon to handle, and a remodelling scheme was, therefore, drawn up providing for the minimum arrangements immediately required but with room for some expansion later. The new arrangements will include a passenger platform of medium height, waiting and booking facilities for third class passengers, with a foot-overbridge connecting them with the platform, goods running lines with a shunting neck and ample siding accommodation, as also adequate signalling arrangements to ensure safety in train working. The entire work is estimated to cost Rs. 4·63 lakhs.

(v) *Permanent-way renewals and major traffic facilities.*—The programme for relaying the track of the Assam Bengal Railway during the year under review was increased by an additional 32 miles, making a total of 82 miles for the year, and sanction was also accorded to the relaying of the 22·75 miles section from Jamrao to Jhudo on the Jodhpur Hyderabad Railway.

Sanction was accorded also to an expenditure of Rs. 2·68 lakhs on alterations to loops at certain stations on the Gomoh-Gaya section of the East Indian Railway to bring them up to 2,000 ft. in length and on extensions of the lines in the Gomoh yards, so as to enable goods train loads of 70-72 wagons being worked on that section. This measure will, it is anticipated, result in a saving in shunting expenditure, as 70 wagon loads are already being worked beyond Gaya, and will also enable the X. E. class engines used over the section to be utilised to their full capacity.

The East Coast section of the Bengal Nagpur Railway between Bhadrak and Barang, a length of nearly 80 miles, was reconditioned during the year at a cost of Rs. 3·05 lakhs. The work, which consisted mainly of re-straightening bent rails, inserting additional sleepers and providing anti-creep anchors and additional ballast, will, it is anticipated, postpone for several years wholesale renewals which would cost roughly about Rs. 25 lakhs.

(vi) *Remodelling the East Indian Railway Workshops at Jamalpur and the Great Indian Peninsula Railway Carriage and Wagon Shops at Jhansi.*—These works have been described in earlier reports. During the year under review good progress was maintained on the various items that go to form the remodelling, and by the end of the year about 80 per cent. of the Jamalpur Scheme and very nearly the whole of the Jhansi project had been completed.

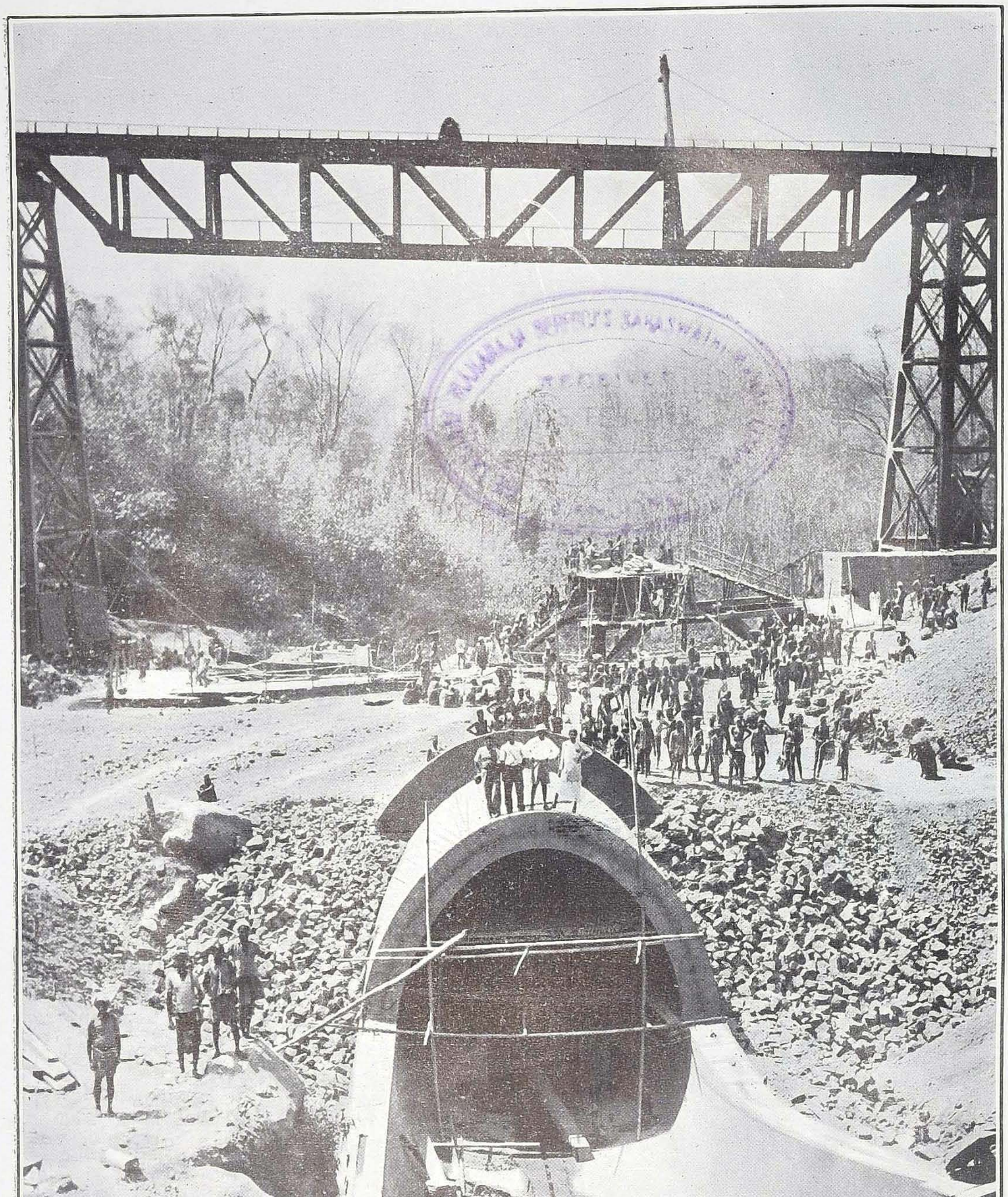
(vii) *Remodelling Savan Station Yard—Bengal and North-Western Railway.*—Savan station is the chief centre for distributing cane wagons in the West Gundak area and is called upon to marshall and distribute over a 100 empty and the same number of loaded wagons a day. As the existing accommodation was insufficient to enable this work to be done efficiently and as serious detentions were also being experienced, for want of crossing facilities, a remodelling scheme was put in hand at a cost of Rs. 1·62 lakhs. The main features of the scheme are extra extended sidings and shunting necks, an extension of the existing platform and the provision of an island platform with an overbridge connecting the two to the passenger shed, two new third Class passenger waiting sheds, an improved engine shed and yard, and carriage washing and other facilities.

(viii) *Remodelling Locomotive Sheds at Dhond and Jhansi—Great Indian Peninsula Railway.*—From the experience gained of the improved utilisation of locomotives which was rendered possible by the remodelling of the Bhusaval Running Shed, it was decided to extend the policy also to the Sholapur Division of the Great Indian Peninsula Railway and to remodel the Dhond Locomotive Shed so as to permit of the concentration of the locomotives allotted to the Division at that shed, and to provide adequate repair facilities and equipments with necessary staff quarters. The total expenditure entailed is Rs. 8·59 lakhs, of which Rs. 3·65 lakhs is for quarters. The work, when completed, will it is anticipated, permit the closing of the existing sheds at Sholapur and Shahabad, and by reducing working costs, effect a net saving of Rs. 1·43 lakhs per annum equivalent to a return of 13·68 per cent. on outlay.

The remodelling of the Locomotive Shed at Jhansi at a cost of Rs. 6·77 lakhs was similarly put in hand during the year. The concentration of locomotives at Jhansi will enable the closing of the sheds at Mahoba and Damoh, and the increase of staff wages at Jhansi will be off-set by reductions at the remaining sheds. The net reduction in working costs in the Jhansi scheme is also estimated to be substantial.

(ix) *Coimbatore Station—South Indian Railway.*—The difficulties experienced at this station and the remedial measures proposed were described in last year's report. These were put in hand and during the year further proposals comprising stage II of the remodelling were formulated and accepted in principle. These will comprise mainly facilities to enable also metre gauge trains to run from Podanur to Coimbatore, the extension of the goods yard and the provision of a metre gauge passenger and goods yard at the latter station. The preparation of detailed plans and estimates for these works is in hand.

(x) *Strengthening of Bridges and Tunnels*—(a) *North Western Railway.*—Sanction was accorded to work being taken in hand on the renewal of 78 bridges on the Rajpura-Bhatinda Section of the North Western Railway as the metal was overstressed and the bridges declared to be dangerous; otherwise it would have been necessary to impose a speed restriction of 10 miles an hour over each of these bridges, with consequent disorganisation of the train service over the section. The work is estimated to cost Rs. 3·61 lakhs and will be spread over 3 years.



Bridge No. 19 showing 20 feet reinforced concrete culvert being built to replace the Mailongdisa trestle viaduet.

(b) *East Indian Railway.*—The Buckland Road Overbridge in the Howrah Station Yard which carries a roadway as well as tram lines, was found to be in urgent need of repairs, as the steelwork had corroded in parts and the trough plates in many places needed immediate renewal. Repair work was put in hand at a cost of about Rs. 1·60 lakhs, and consists of a complete renewal of badly corroded parts, other repairs by the welding process where possible and the provision of a cement concrete surface over the entire roadway area of the trough plates, with additional side cover plates and larger drainage pipes to protect the steelwork from excessive corrosion caused by droppings from the road.

(c) *South Indian Railway.*—As the result of a cyclone on 15th November 1935 the Shanmuga River came down in heavy flood and underscouring the foundations of the South Indian Railway 6′ × 60′ bridge near Palni, caused some of the piers to tilt. The piers were underpinned and protected by concrete aprons and drop walls at a cost of Rs. 1·13 lakhs.

On the broad gauge section of the same railway the weak girders of the Tirur and Varakambad bridges had for some time prevented the working of heavy engines between Shoranur and Calicut. The regirdering of the Varakambad bridge was taken in hand in 1935 and as its completion would have given little relief without the regirdering also of the Tirur bridge, the Administration was authorised to take the latter in hand during the year and so take advantage of the trained staff and plant utilised on the former. The cost of the work, with necessary regrading of the station yard at Tirur, is Rs. 1·06 lakhs.

(d) *Assam Bengal Railway.*—Bridge No. 19 at mile 286 on the Assam Bengal Railway consisting of 2′ × 60′, 2′ × 40′ and 1′ × 147′ 6″ girders, had proved a source of anxiety to the Administration for several years. Built in 1898, the south end and centre were destroyed by floods in July 1915. It was rebuilt and reopened in 1920, but in 1928 and later, movements were noticed which investigation proved to be due to the slipping of the entire hillside on which it was built. As the destruction of the bridge would have caused complete interruption of traffic for anything from six to ten months and as owing to the depth of the ravine which it spanned transhipment would have been practically impossible, it was decided to replace it by a 20 foot diameter reinforced concrete barrel and an earthfill on a new alignment at a cost of Rs. 2·16 lakhs. The concrete barrel was completed during the year and good progress was made with the earthfill.

(e) *Bengal and North-Western Railway.*—The stone protection works at the Elgin Bridge over the Gogra River near Chowkaghat were severely tried by the flood, induced by heavy and continuous rainfall in the United Provinces in the monsoons of 1936, and resulted in deep scouring and in subsidences of the pitching, which in parts amounted to as much as 22 feet. It was necessary, therefore, to superimpose additional pitching wherever required in order to present a uniform surface to the flow of the river, to widen the aprons and to streamline the left guidebank through the bridge before the monsoons of 1937. The work was carried out at a cost of Rs. 4·72 lakhs.

44. Hardinge Bridge—Eastern Bengal Railway.—During the year under review the flood in the Ganges reached the exceptional high flood level of 247·4 ft. which is also the highest recorded since the Hardinge Bridge was opened for traffic in 1915. The piers and protection works withstood the attacks of the river remarkably well, except that on 10th September a length of about 300 ft. of the front slope of the Right Guide Bank slipped into the river. Emergency repairs were, however, completed within a week and proved effective during the remainder of the flood season.

In pursuance generally of the recommendations of the Hardinge Bridge Committee referred to in earlier reports, the Sara Protection Bank was abandoned and work put in hand on extending up-stream the Raita and Damukdia Protection Banks on suitably realigned curves, and on reinforcing the Right Guide Bank for scour down to R. L. 60. Roughly about 40 to 65 per cent. of the work referred to above was completed during the year.

CHAPTER IV.

TRANSPORTATION AND WORKING.

45. Statistics.—The best index to the volume of business handled by railways is " passenger miles " for passenger traffic and " net ton miles " for goods traffic. These terms mean the total number of passengers and tons carried multiplied by the number of miles over which they are moved. The following table shows that the volume of traffic carried by class I Railways increased during the year as compared with the previous two years. The figures of net ton miles given do not include the tonnage hauled by purely departmental trains; these were only about 2 per cent. of the total.

(Figures in thousands.)

Particulars.	Class I Railways.			
	1934-35.	1935-36.	1936-37.	Percentage of increase (+) or decrease (—) compared with 1935-36.
Passenger miles	16,987,135	17,353,294	**17,436,677**	+0·48
Net ton miles	19,547,067	19,773,126	**20,701,293**	+4·69

Service performed.—The following table shows the number of train miles run to carry this traffic. Passenger train miles show an increase of 0·07, 5·65 and 7·19 per cent. on the broad, metre and narrow gauge, respectively. The goods train miles show an increase of 5·46 per cent. on the broad gauge, 4·28 per cent. on the metre gauge and 3·01 per cent. on the narrow gauge. Full details of train and engine miles of class I Railways are given in Statement Nos. 17 and 32 of Volume II and those of classes II and III Railways in Statement No. 37 :—

(Figures in thousands.)

Particulars.	CLASS I RAILWAYS.											
	BROAD GAUGE.				METRE GAUGE.				NARROW GAUGE.			
	1934-35.	1935-36.	1936-37.	Percentage of variations with 1935-36.	1934-35.	1935-36.	1936-37.	Percentage of variations with 1935-36.	1934-35.	1935-36.	1936-37	Percentage of variations with 1935-36.
Passengers (including proportion of mixed) train miles.*	67,429	68,873	**68,919**	+0·07	31,234	32,787	**34,640**	+5·65	2,273	2,267	**2,430**	+7·19
Goods (including proportion of mixed) train miles.†	40,172	41,492	**43,757**	+5·46	19,887	19,580	**20,419**	+4·28	1,565	1,627	**1,676**	+3·01

* Includes mileage of electric locomotive and electric multiple units.
† Includes mileage of electric locomotive trains.

In addition to the train services mentioned above, considerable other engine mileage was necessary which were of an unproductive nature, *viz.*, for shunting, light and assisting not required engine mileage. During the year, this mileage was equivalent to about 19 per cent. of the total engine miles (including departmental). The departmental train and engine mileage —which is also not directly productive—amounted to 9·3 million miles, or about 4 per cent. of the total as compared with 5 per cent. in the previous year. As shunting miles form the greater proportion of unproductive mileage, the following table has been prepared to show the ratio per 100 train miles on the passenger and goods services of class I Railways :—

Particulars.	Broad Gauge.				Metre Gauge.			
	1934-35.	1935-36.	**1936-37.**	Percentage of variations with 1935-36.	1934-35.	1935-36.	**1936-37.**	Percentage of variations with 1935-36.
Shunting miles per 100 train miles (Passenger and proportion of mixed).	5·03	4·94	**5·15**	+4·25	5·07	4·57	**4·54**	—0·66
Shunting miles per 100 train miles (Goods and proportion of mixed).	35·4	35·1	**34·2**	—2·56	32·6	32·3	**32·4**	+0·31

Engines.—The work done by engines is expressed by the figure " engine miles per engine per day ". This may either be calculated on the number of engines on the line or on the number of engines actually in use; on the former basis there was increase of engine miles per engine day compared with the previous year from 69 to 71 on the broad gauge and 66 to 71 on the metre gauge and on the latter basis there was an increase from 110 to 111 on the broad gauge and 103 to 105 on the metre gauge. The percentage of engines under or awaiting repairs in mechanical and transportation workshops increased compared with the previous year from 17·7 to 18·0 on the broad gauge, while there was a decrease on the metre gauge, *viz.*, from 13·4 to 12·6.

46. Speed of goods trains.—The average through speed of goods trains means the total time taken by a train from the start to the finish of its run inclusive of stops *en route*. In 1936-37 the average speed on class I Railways was practically the same as in the previous year : the figures being 11·5 on the broad gauge and 11·1 on the metre gauge as compared with 11·5 and 11·2 respectively in the previous year. In statement No. 20 of Volume II details are given for each railway.

47. Loads of goods trains.—The average net or freight load of broad gauge (steam) goods trains on class I Railways decreased from 393 tons in 1935-36 to 389 tons in 1936-37; on the other hand, the figure for metre gauge lines increased from 171 to 175. Statement No. 23 of Volume II gives the figures for each railway.

The main index figure of goods train working, *i.e.*, " net ton miles per engine hour " showed an improvement : being 1,955 for the broad gauge and 904 for the metre gauge as compared with 1,931 and 887 for the broad and metre gauge, respectively, in 1935-36.

48. Wagon usage.—The extent to which available wagon stock is utilised may be expressed either in the average number of miles run per wagon per day, both loaded and empty wagons being taken into account, or in the average number of net ton miles carried by a wagon per day. Both these statistical figures, however, indicate the work done by the total number of wagons on railways including those standing empty and stabled during the period they are in excess of traffic requirements and not only by the

wagons actually in use. The following table shows these results as compared with the previous year :—

Particulars.	Class I Railways.			
	Broad gauge.		Metre gauge.	
	1935-36.	**1936-37.**	1935-36.	**1936-37.**
Wagon miles per wagon day	35·1	**37·0**	28·1	**28·9**
Net ton miles per wagon day	309	**324**	142	**150**

Stock out of commission.—(i) *Goods Wagons.*—The average percentage of unserviceable wagons in mechanical and transportation workshops and sick lines to the total number of goods wagons decreased from 9·56 in 1935-36 to 9·53 in 1936-37 on the broad gauge while on the metre gauge the percentage increased from 2·88 to 3·22.

(ii) *Passenger Vehicles.*—Similarly the average number of passenger vehicles under or awaiting repairs shows a decrease from 11·83 in 1935-36 to 11·55 in 1936-37 on the broad gauge and from 8·04 to 7·82 on the metre gauge.

Turning to individual railways, some of the principal features of the year's transportation working are as follows :—

Assam Bengal Railway.—The shunting miles per 100 passenger and goods train miles fell from 7·43 and 29·8 in 1935-36 to 6·86 and 28·2 in 1936-37, respectively.

Bombay, Baroda and Central India Railway.—The net ton miles per engine hour and net ton miles per wagon day on the broad and metre gauge advanced from 2,260, 1,186 and 295, 190 in 1935-36 to 2,302, 1,254 and 318, 207 in 1936-37, respectively. The net ton miles per (goods) locomotive day on line and in use on the metre gauge advanced from 7,308 and 14,124 in 1935-36 to 8,120 and 15,320 in 1936-37, respectively.

Eastern Bengal Railway (broad gauge).—The net ton miles per goods locomotive day on line and wagon miles per wagon day advanced from 8,841 and 22·9 in 1935-36 to 9,909 and 25·4 in 1936-37, respectively. The shunting miles per 100 goods train miles fell from 58·1 in 1935-36 to 52·0 in 1936-37.

East Indian Railway.—The wagon miles per wagon day and net ton miles per wagon day advanced from 34·6 and 328 in 1935-36 to 36·0 and 343 in 1936-37, respectively.

Great Indian Peninsula Railway (broad gauge).—The net ton miles per goods locomotive day on line, net ton miles per wagon day and wagon miles per wagon day advanced from 13,576, 362 and 41·8 in 1935-36 to 14,834, 390 and 47·4 in 1936-37, respectively. The shunting miles per 100 goods train miles fell from 32·5 in 1935-36 to 30·6 in 1936-37.

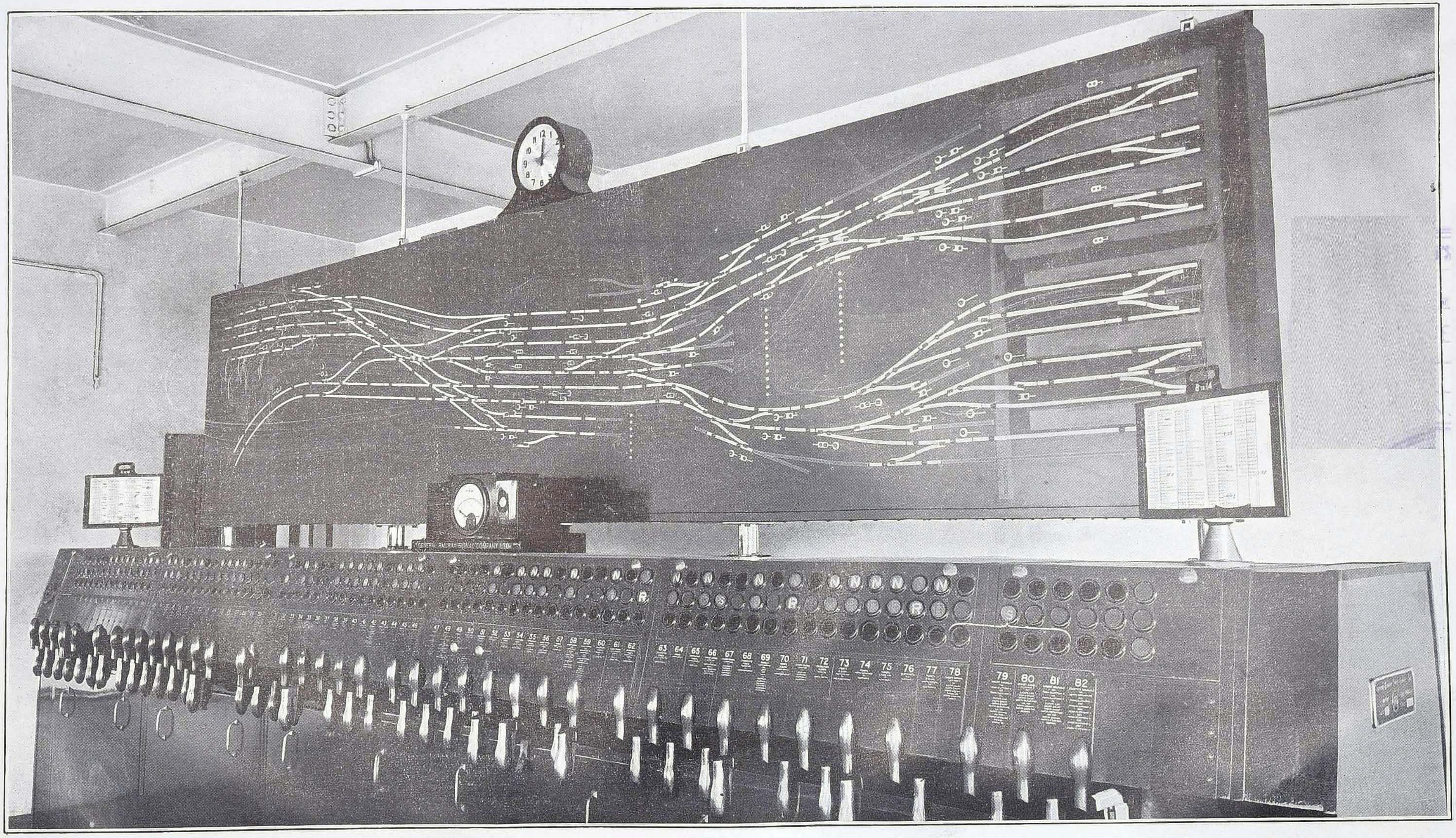
Madras and Southern Mahratta Railway.—The net ton miles per goods locomotive day on the broad gauge and wagon miles per wagon day on the metre gauge advanced from 14,047 and 27·9 in 1935-36 to 15,047 and 30·3 in 1936-37, respectively.

His Exalted Highness the Nizam's State Railway (broad gauge).—The net ton miles per engine hour increased from 1,835 to 1,887.

Jodhpur Railway.—The net ton miles per engine hour and wagon miles per wagon day advanced from 692 and 36·3 in 1935-36 to 804 and 40·3 in 1936-37, respectively.

North Western Railway.—The net ton miles per engine hour and net ton miles per goods locomotive day in use advanced from 1,655 and 18,604 in 1935-36 to 1,809 and 20,071 in 1936-37, respectively.

South Indian Railway (broad gauge).—The net ton miles per engine hour and net ton miles per wagon day increased from 1,086 and 249 in 1935-36 to 1,265 and 280 in 1936-37, respectively. The net ton miles per



Interior of new station Cabin at Howrah showing the All-Electric Power Frame and Illuminated Diagram.

goods locomotive day on line and in use also advanced from 8,636 and 16,136 to 9,771 and 18,677, respectively.

The figures of cost of repairs and maintenance of rolling stock show substantial reductions on almost all class I Railways. The following table shows the railways which have effected the largest reductions:—

Railways.	Cost of repairs and maintenance to an engine per equated engine mile.		Cost of repairs and maintenance to a four-wheeler passenger carriage per carriage on line.		Cost of repairs and maintenance to a four-wheeler goods wagon per wagon on line.	
	1935-36.	**1936-37.**	1935-36.	**1936-37.**	1935-36.	**1936-37.**
	As.	As.	Rs.	Rs.	Rs.	Rs.
Bengal Nagpur . . .	2·75	**2·22**	918·5	**774·5**	178·7	**149·7**
Bombay, Baroda and Central India—						
Broad gauge . .	3·65	**3·35**	965·5	**919·3**	..	..
Eastern Bengal—						
Broad gauge . . .	2·85	**2·61**	746·9	**693·6**	..	..
Metre gauge . . .	2·95	**2·44**	..	..	..	..
East Indian	..	..	672·2	**600·3**	..	..
Great Indian Peninsula .	2·90	**2·66**	905·6	**820·3**	..	..
Madras and Southern Mahratta—						
Broad gauge . . .	3·55	**3·23**	641·0	**558·8**	..	..
Metre gauge . . .	3·41	**3·09**	342·2	**318·9**	..	..
His Exalted Highness the Nizam's State—						
Broad gauge . . .	3·11	**2·36**	791·3	**599·8**	122·3	**78·7**
Metre gauge . . .	4·82	**3·32**	560·1	**441·3**	..	..
Burma	2·60	**2·37**	..	..	77·5	**48·5**
South Indian—						
Metre gauge . . .	3·46	**2·86**	..	..	..	..

49. Punctuality of passenger trains.—The following table shows the percentage of passenger trains not losing time to the total number of trains run on class I Railways during 1936-37, as compared with 1935-36:—

—	All trains (including electric multiple unit trains).	Mail and important through trains.	Mixed trains.	Suburban trains.	Other passenger trains.
Broad Gauge.					
1935-36	87·3	81·9	83·5	88·5 95·1*	85·3
1936-37	**84·7**	**81·4**	**81·8**	**83·5 94·9***	**81·6**
Metre Gauge.					
1935-36	88·5	88·8	87·1	97·4 90·2†	87·8
1936-37	**87·3**	**83·6**	**86·0**	**95·3 92·2†**	**86·6**

* Bombay, Baroda and Central India and Great Indian Peninsula Railways' electric multiple unit trains.
† South Indian Railway's electric multiple unit trains.

The general falling off in the percentage of trains not losing time was due mainly to temporary engineering speed restrictions, breaches of the line and a heavy rush of goods traffic in January and February 1937 on practically all railways. Two other factors which seriously affected the average figures

were the cyclone on the Madras and Southern Mahratta Railway in October which destroyed all communications on the East Coast section and upset regular working for some time, and the dislocation of train services on the Bengal Nagpur Railway during a strike: the latter factor re-acting on trains on connected railways. An acceleration in the average time-table speed of trains that had been made previously reduced the margin for the recovery of time lost.

50. System of ticket checking and passengers travelling without tickets.—In previous reports it was stated that Railways had found that a system of " Ticket Collectors " and " Checkers " at stations and " Travelling Ticket Examiners " with trains, was the most satisfactory method of preventing illicit travel. The following paragraphs detail briefly the further action taken on individual railways.

Bengal Nagpur Railway.—Six additional Travelling Ticket Checkers were appointed on the East Coast section and Satpura District and six additional Ticket Collectors at certain large stations.

Special checks were carried out by the staff under District Officers.

Bengal and North-Western Railway.—Seventeen ticket checking raids were carried out in the United Provinces and 48 in Bihar in conjunction with the police.

Bombay, Baroda and Central India Railway.—The anti-mendicant gang introduced on the metre gauge section in 1934 continued to function. There was a slight fall in the number of mendicants detected travelling without tickets. Two similar gangs were employed on the broad gauge system on the Bulsar and Ratlam Districts.

Eastern Bengal Railway.—In the suburban area, the system of " Alternate Crew Checks " which provided for a regular check of only important trains with batches of 6 men and of the less important ones with batches of two men was replaced by a regular check of all suburban trains by batches of 1 Crew-in-Charge and 2 crew-men. This arrangement was tried experimentally for three months on the southern section only, and subsequently extended to other sections of the suburban area.

Certain special measures adopted during the previous year in an attempt to prevent ticketless travel and eradicate fraud were continued. In addition it was arranged to have surprise checks on the working of the crew staff by the Accounts staff working under the supervision of an Accounts Officer and to get daily telegraphic reports from the Inspectors on the work done by each man.

East Indian Railway.—(i) The number of concentrated surprise checks lasting for 24 hours at principal stations was increased.

(ii) The number of stations at which platform tickets were sold was increased.

(iii) Checks on trains intended for workmen were intensified.

(iv) A super-check was made by the Accounts staff, under the supervision of the Deputy Chief Accounts Officer, on 8 selected trains.

Great Indian Peninsula Railway.—In addition to the ordinary Travelling Ticket Inspectors, a permanent flying squad was employed on the Bombay Division.

The crew system of one man in charge of each carriage on every train was continued on the Bhusaval—Harda and Bhusaval—Badnera sections. The appointment by the local Government of Railway Magistrates at Jubbulpore, Jhansi and Agra helped to expedite and facilitate the disposal of cases.

Madras and Southern Mahratta Railway.—A slight change in the system previously in force ensured a more intensive check in the Madras area. The arrangement now provides for :—

(i) Ticket Collectors being posted also at certain small stations where the work of examination and collection of tickets is too heavy for the Station Master to deal with effectively.

(ii) Ticket examining staff being posted at junctions and other strategic points to check tickets in passing trains.

(iii) Travelling Ticket Examiners under the control of the District Officers checking tickets on trains. These men also assist the station staff in dealing with traffic on the occasion of festivals, etc.

(iv) Headquarters Travelling Ticket Examining squads, working under the orders of the Chief Commercial Manager, carrying out special checks in certain defined areas.

(v) A special squad of 25 Travelling Ticket Examiners, also under the control of the Chief Commercial Manager, operating only in the Madras suburban area.

His Exalted Highness the Nizam's State Railway.—An additional Travelling Ticket Inspector was posted to the suburban area to check the use of cheap day return tickets.

The movement of Inspectors was kept as confidential as possible by a system under which they were indicated by numbers, the numbers applicable to a section being changed every month. Travelling Ticket Inspectors were permitted on occasions to work in plain clothes and were supplied with identification badges for production if challenged. During the first quarter of the year, two Inspectors made surprise checks on all sections and occasionally accompanied travelling Magistrates who were able to deal expeditiously with the cases of ticketless passengers, etc., referred to them.

North Western Railway.—From June 1936, a special squad of 8 special Ticket Examiners and 1 Head special Ticket Examiner under the Chief Commercial Manager was organised to make surprise checks, particularly of trains examined by Divisional Ticket Examiners, thus acting as a counter-check on the working of the ordinary ticket checking staff.

An experiment was started and was still under trial at the end of the year of making a cent. per cent. check of passenger trains on the Rawalpindi Division, with a view to ascertaining the extent of illicit travelling.

Temporary posts of Lady Ticket Examiners on day trains on the Lahore and Rawalpindi Divisions were made permanent, and similar temporary posts have been created on other Divisions.

The following statement shows the total number of passengers detected travelling without proper tickets on Class I Railways during the year 1936-37 and the amount due from them :—

Railways.	No. of passengers.	Amount due.
		Rs.
Assam Bengal	57,872	61,048
Bengal Nagpur	235,504	3,16,239*
Bengal and North-Western	299,244	2,01,102
Bombay, Baroda and Central India	**718,834**	**4,56,799**
Eastern Bengal	235,558	1,71,623
East Indian	279,000	4,17,000
Great Indian Peninsula	278,362	2,57,513
Jodhpur	21,989	26,413
Madras and Southern Mahratta	171,687	1,29,686
His Exalted Highness the Nizam's State	13,938	14,321
North Western	364,943	4,50,570
Rohilkund and Kumaon	41,289	38,504
South Indian	124,831	1,09,921*
Total	2,843,051	26,50,739

* These figures are of amounts actually recovered.

51. Road Motor Competition.—The adoption of suitable measures to meet road competition continued to engage the close attention of all Railways. Competition for goods traffic was intensified owing chiefly to gross overloading of motor lorries and to a flagrant evation of the Motor Vehicles Rules. Brief particulars of the position on some of the principal railways and of the steps taken by them during the year are given in the following paragraphs.

Assam Bengal Railway.—Road competition was severe in the Jorhat and Sibsagar areas of Assam. In the Nowgong and Silghat area there was an improvement in the position consequent on a reduction in fares on the Chaparmukh-Silghat Railway and the introduction of the long distance maximum fare tickets. An agreement was reached with the owners of buses operating between Hailakhandi and Silchar, providing for a co-ordination of the timings of trains and buses.

Bengal and North-Western Railway.—In order to meet the conditions created by road motor competition, the period of availability of third class return tickets on the Benares-Allahabad section was extended from 36 to 48 hours and a branch booking office was opened near Benares Cantonment station.

Bombay, Baroda and Central India Railway.—Measures taken to meet road competition included time-table adjustments, cheap return tickets, quotation of special terms for marriage parties, special trains at concession rates, provision of additional halts between regular stations in areas where roads run parallel to the railway. In the case of goods traffic, competition was successfully countered in certain cases by reduction in rates, and in others, by expediting transit.

Eastern Bengal Railway.—On the Khulna-Bagerhat Light Railway, cheap lower class tickets were re-introduced between certain stations and special rates for parcels traffic were quoted.

East Indian Railway.—Competition is now general throughout the system, the focal points being large centres such as Calcutta, Gaya, Patna, Benares, Allahabad, Cawnpore, Lucknow, Agra, Delhi, Saharanpur and Dehra Dun. Both short and long lead traffic are affected, the former for practically all descriptions of merchandise, and the latter mainly for the higher rated commodities such as manufactured goods, spices, fruit, etc. A great deal of the traffic in fruit, etc., from Peshawar and other frontier stations to Calcutta was diverted to the road by services organised in the North-West Frontier Province. To protect and develop rail traffic, action was taken on the following lines according to the circumstances of each case:—

(1) Reduction in rates both parcels and goods and the quotation of a flat rate for all consignments irrespective of their nature, *e.g.*, from Calcutta to certain stations in the coal fields.

(2) Speeding up transport of both " smalls " and wagon loads.

(3) Simplifying and improving booking and delivery arrangements at terminal stations.

(4) Establishment of out-agencies and through rail-*cum*-road services in suitable areas.

(5) Representations to Provincial Governments and local bodies for the removal of discriminatory taxation on rail-borne traffic.

(6) Canvassing.

(7) Educating the staff to be alive to the interests of the railway and its constituents.

(8) Greater publicity for railway services, facilities and charges.

Great Indian Peninsula Railway.—Competition for passenger, parcels and goods traffic continued to be severe and has since extended to traffic for long distances and for bulky goods. Measures were taken more or less similar to those adopted on other railways, to meet this competition.

Madras and Southern Mahratta Railway.—Road competition has been spreading all over the area. Improved transit of goods and rate reductions were some of the measures adopted to counter this competition.

His Exalted Highness the Nizam's State Railway.—There was a marked improvement in road-rail co-ordination by the opening of additional out-agencies, the inauguration of local collection and delivery services for traffic between Warangal, Hyderabad and Secunderabad, and the introduction of combined excursions by railway and bus. Competition with the railway, however, increased, particularly by privately-owned goods lorries operating on parallel or short-circuiting routes.

North Western Railway.—Measures to counter road competition were intensified. Faster through trains were run between important stations and a number of stations provided with only one booking clerk was opened. A system of intensive canvassing for goods and parcel traffic was introduced, and in some towns the collection of parcels at consignor's residence and delivery at the premises of the consignee were arranged for.

Rohilkund and Kumaon Railway.—Tickets were issued at concession rates on certain sections and light passenger trains at accelerated speed were run between Bareilly and Kathgodam and Bareilly-Mailani.

South Indian Railway.—Cheap third class return and single journey tickets were issued with encouraging results, but fare-cutting by bus owners neutralised the result of the action taken. The introduction of fast passenger trains, running of additional trains at more convenient timings, stopping of certain trains at level crossings serving villages, were other methods adopted to meet road competition.

52. Contact with the business community.—Increasing attention has been given to the establishment of closer contact between Railways and the trade, supplementing such contacts as had already been established through Local Advisory Committees and by memberships of Chambers of Commerce and other similar organisations. Informal meetings are held once in each quarter at Calcutta and Bombay between the representatives of various trade interests and the Agents of principal railways having their headquarters in these cities. Divisional Traffic Managers on the Great Indian Peninsula Railway convene quarterly meetings with traders, forwarding and receiving agents at all stations of importance, in order to maintain personal contact with the business community. At these meetings the business community are specially advised of changes in rates and of other facilities of interest to them. Special traffic canvassers have also been appointed on some railways to watch the development of trade and industries and to bring to notice matters of importance or interest in connection with the movement of traffic. These canvassers endeavour to keep in touch with the commercial community as far as is possible.

Meetings are held periodically by the Commercial and Transportation Officers of His Exalted Highness the Nizam's State Railway also with representatives of the trading community.

53. Facilities for dealing with traffic.—Facilities provided for the booking and delivery of parcels may be sub-divided under two main heads, *viz.*:—

(*a*) at stations,

(*b*) at places other than railway stations.

Particulars of steps taken by Railways under (*a*) are briefly as follows :—

Assam Bengal Railway.—The fish ghat at Chandpur was extended and one extra booking clerk posted at Pandu.

Bengal and North-Western Railway.—Extra loading foremen were appointed at stations serving factories to facilitate booking of the factories output.

Bengal Nagpur Railway.—Loading platforms have been improved at certain stations to facilitate the booking of goods and new sidings have been provided at Jakpur, Raipur and Lohardaga.

Eastern Bengal Railway.—Six flag stations were opened for further goods booking.

East Indian Railway.—Twenty more stations were opened for booking of various descriptions of traffic. Fifteen sidings were also provided to serve mills and factories.

Jodhpur Railway.—A siding has been provided at Silari to facilitate booking of goods traffic and Merta Road goods shed has been shifted to a more convenient site.

The additional arrangements made by railways under (*b*) above were as follows :—

Bengal Nagpur Railway.—A town parcel office was opened at Jamshedpur.

Bombay, Baroda and Central India Railway.—Street delivery of parcels was introduced at Surat, Broach, Baroda and Nadiad.

Eastern Bengal Railway.—A door-to-door collection and delivery service of goods, luggage and parcels from and to private residences and merchants' godowns situated within a radius of six miles from Sealdah was inaugurated. Similar arrangements for the delivery of goods by road and river in the Chitpur area and of parcels in the Sealdah area have been in existence for some years. Out-agencies were also opened at Dhekiajuli and Dacca.

East Indian Railway.—A door-to-door collection and delivery service was started in Calcutta for the collection and delivery of goods, at places of business, godowns, factories or residencies. A similar arrangement was introduced in the Asansol and Dhanbad coal-field area.

Out-agencies were also opened at Ranchi Town and Bindki.

Madras and Southern Mahratta Railway.—Arrangements were made for perishable parcels booked to Korukkuppettai station to be delivered to consignees at their place of business.

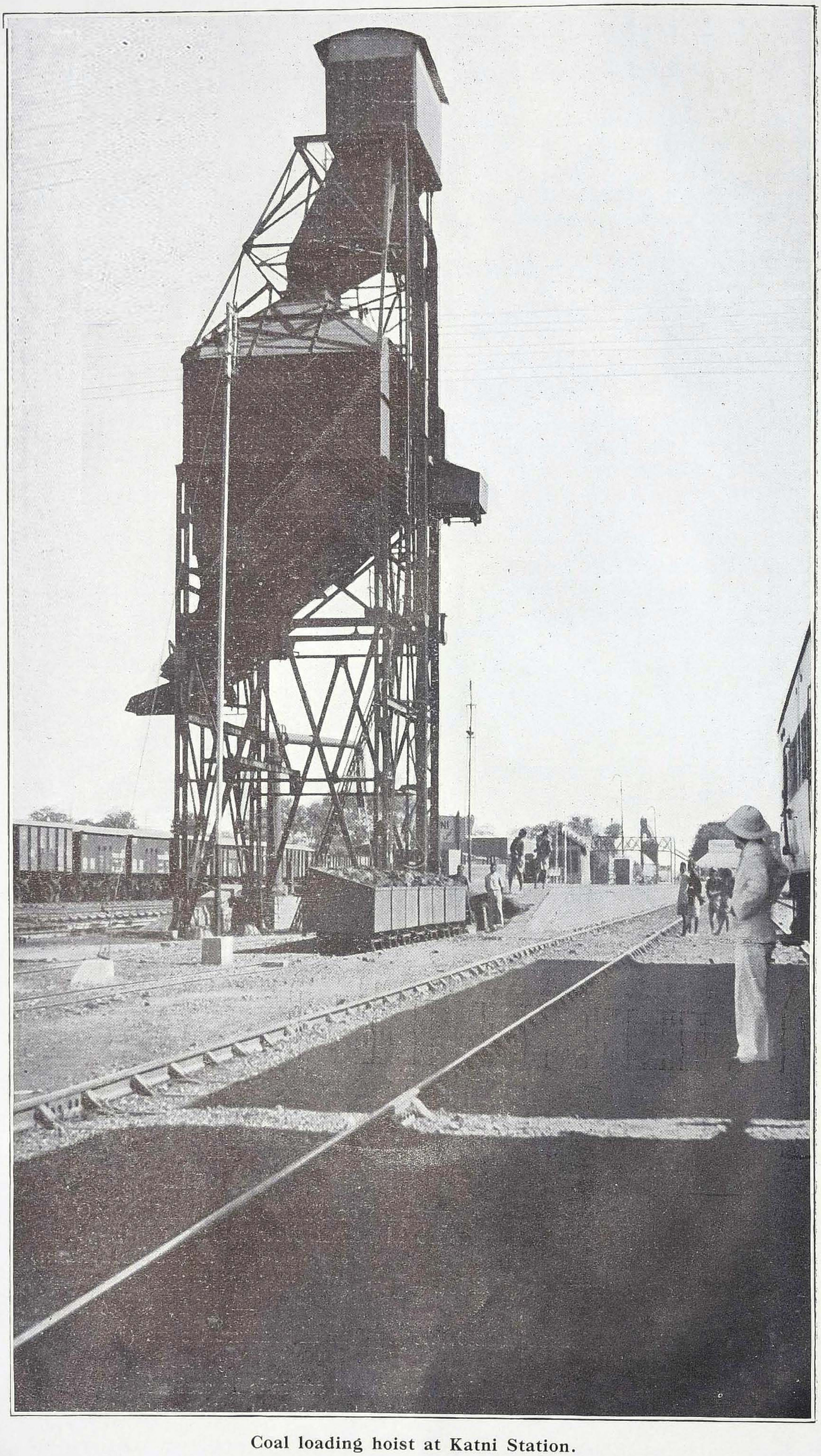
54. Quick transit of "smalls" and reduction of delays at transhipment stations.—Brief particulars of the steps taken by Railways are given in the following paragraphs :—

Assam Bengal Railway.—To expedite movements of "smalls" a road van train, which is either a mixed or a goods train, runs daily each way on each section of the railway. Terminal and transhipment stations make up sealed wagons with miscellaneous consignments for as distant junctions as possible and these wagons are moved by fast trains. To eliminate detention at transhipment and terminal stations the minimum load fixed for such wagons is much below the carrying capacity of the wagon. By a system of regular check of transhipment stations delays in transhipment are controlled.

Bengal and North-Western Railway.—Transhipment stations are comparatively close together and the system of section road vans for despatch to the next packing station makes provision for prompt despatch and speedy transport. Inspectors have instructions to keep a careful watch on this traffic.

Bengal Nagpur Railway.—Consignments of "smalls" booked to local stations are carried by tranship trains. These trains are looked upon as the next most important to passenger trains in order to ensure the quickest possible transit for "smalls" traffic. The time taken in transit between selected pairs of stations is watched and delays are taken up. Express goods services have also been provided which give daily a seven-day service from Calcutta to Bombay and a five-day service from Calcutta to Madras and *vice versâ*. The express service from Bombay to Calcutta is bi-weekly. Similarly there is a two-day service between Calcutta and Ranchi.

Bombay, Baroda and Central India Railway.—The system relating to the transit of "smalls" was carefully examined and overhauled in order to secure greater efficiency. The new procedure is designed to afford a more economical use of stock to expedite transit, and to reduce the handling *en route* to a minimum. District Traffic Superintendents are now authorised



Coal loading hoist at Katni Station.

Designed to load ten tons of coal in six minutes.

to relax the rules relating to minimum loads per wagon under certain conditions.

Eastern Bengal Railway.—To ensure the expeditious movements of "smalls", quick transit programmes have been revised and brought up to date. Daily tranship road vans also run to certain stations, irrespective of the load offering.

East Indian Railway.—The transit time of "smalls" traffic is specially watched over no less than 85 point-to-point movements. A special investigation is now being made with a view to further improvement and for the adoption of a guide for use in the entire system.

Madras and Southern Mahratta Railway.—With the object of accelerating the transit of goods traffic and specially of small consignments a service of regular through wagons between important stations was introduced. Careful statistics are maintained of the use made of these wagons. The provision of through services, where practicable, is arranged to prevent delay to consignments in transit.

His Exalted Highness the Nizam's State Railway.—Daily tranship goods trains are run on the main lines and "smalls" are cleared daily by these trains either in through road vans or in section road vans.

North Western Railway.—With a view to speed up movement of goods traffic, both in wagon loads and "smalls", express goods trains were introduced on certain sections. A number of transhipment sheds was also closed down so as to reduce the number of transhipments. The re-packing work which was previously being done at these sheds is now carried out *en route* by van porters on the trains.

Rohilkund and Kumaon Railway.—Road vans were run on regular trains and special care is exercised at transhipment stations to avoid delays.

South Indian Railway.—A system of clearance of "smalls" traffic by specially designated "Road Van Trains" has been introduced on almost all sections.

55. Refunds on unused tickets.—Steps have been taken by Railways to ensure more expeditious disposal of claims for refunds on unused or partially used tickets. In special cases, the pre-audit of refund vouchers is waived, if immediate verification from station records is practicable. Statistics are also compiled on several railways to show the period taken for the disposal of claims for refunds.

56. Equipment of Marshalling Yards and their Working.—Railways maintain statistics to show the average time taken for wagons to pass through their large marshalling yards and where these figures show that the traffic potentialities of the yard are being exceeded the additional facilities considered necessary are provided as funds are available. Quite apart from the advantages of quicker transit through marshalling yards, any delay increases the cost of shunting operations and necessitates a larger number of wagons being in operation than would otherwise be necessary. Yard improvements may often mean entire remodelling, and at other times the provision of humps to enable trains to be broken up and re-marshalled speedily, or improvements in points and crossings and signalling.

The staff employed in marshalling yards all receive special training in their several duties.

The following instances illustrate the action taken by Railways:—

(i) On the Eastern Bengal Railway a special control tower was opened in June 1936 for the purpose of controlling electrically the points and Frolich retarders provided in the remodelled hump yard. The Frolich retarder is a device for slowing down, in accordance with the distance to be traversed, the speed of wagons after passing over the hump, to the line on to which they are to be diverted and it replaces the old "slipper" previously used for the same purpose. The "slipper" was placed on the track under the wheels of the wagon by the shunting porter, at an appropriate distance to give the required

braking effect. The installation of the control tower has naturally made it possible to dispense with a large number of shunting porters and pointsmen and has removed the fallibility attendant on the human factor; it has also speeded up gravity shunting.

(ii) On the North Western Railway humps have been provided at five stations. Khanalampura, an important junction with the East Indian Railway, has been wholly remodelled.

57. Commercial Publicity.—The following paragraphs indicate what has been done by the principal railways in the matter of commercial publicity during the year under review.

Assam Bengal Railway.—Station Masters were instructed to advise traders concerned of all changes in rates and fares, and Traffic Canvassers when inspecting stations are required to satisfy themselves that this is being done.

At Chittagong station, a list of merchants is maintained showing what they trade in so that they can be specially advised of changes in rates affecting them. Traffic Canvassers make out similar lists for other important stations.

Bengal Nagpur Railway.—Publicity has been given to the running of Express Goods services between certain points (*a*) by the exhibition of pictorial posters at important trade centres and at railway stations, (*b*) by the insertion of notices in newspapers and periodicals of commercial importance published in different languages and (*c*) by the exhibition of slides at cinema houses. Similar measures have been undertaken to make known the facilities offered by Vizagapatam Harbour.

East Indian Railway.—Special attention has been given to the question of improving and extending the methods of apprising the public and business community of the various commercial facilities provided. The following are the more important directions in which this publicity has been given :—

(i) Press notices drawing attention to the various tariffs and pamphlets issued and the offices at which such publications are procurable.

(ii) Notifications in the press showing the offices at which information may be obtained in regard to fares, rates and rules applicable to the carriage of traffic. A Special Rates Information Bureau was opened at Cawnpore.

(iii) Advertisements relating to alterations in passenger fares, parcels, livestock, motor car and goods rates.

(iv) Press notifications and publicity by posters, folders, handbills or pamphlets of special concession rates for individual commodities or other items of traffic between specific points or areas, *e.g.*, motor cars, piece-goods, potatoes and sugar.

(v) Advertisements and the issue of folders and handbills relating to Express Goods Services and special arrangements introduced for the quick transit of sugar and piece-goods, and the parcels Express and cold storage services.

(vi) Advertisements, posters, folders and handbills in regard to the Railway's Collection and Delivery Services at certain important stations.

Over a lakh each of folders or pamphlets and handbills and approximately 10,000 posters were issued in connection with the particular items enumerated above.

Great Indian Peninsula Railway.—Publicity is given to the commercial facilities offered by :—

(i) advertisements in newspapers, trade journals, publications, etc.;

(ii) posters;

(iii) notices of changes in rates exhibited on station notice boards;

(iv) handbills, leaflets and folders; and

(v) by beat of drum.

Handbills and leaflets are distributed by specially selected staff who go out into the districts for this purpose. When announcements are made by beat of drum, handbills, etc., are distributed at the same time.

Chambers of Commerce, Trades Associations and large industrial concerns which might be interested in any special facilities offered or any important changes in rates, are specially advised, from time to time, either by letter or by the issue of leaflets.

Madras and Southern Mahratta Railway.—A Neopost Franking Machine which incorporates a publicity slogan with the postage value is used for franking all postal covers despatched by the Commercial Department. The slogan can be changed as required and every cover issued is now franked with a suitable slogan advertising special concessions and other facilities introduced from time to time.

The following figures give an indication of the extent of the publicity undertaken :—

Handbills distributed	611,500
Folders and pamphlets distributed	492,950
Posters exhibited	27,085
Cinema slides exhibited	60
Press notices inserted	695

His Exalted Highness the Nizam's State Railway.—All special rate reductions or other commercial facilities when introduced are widely advertised in newspapers and through handbills and posters.

North Western Railway.—Various methods have been adopted to convey to the business community information regarding the commercial facilities offered. Some of these are indicated below :—

(i) Contracts for advertisement space have been entered into with over 50 newspapers;

(ii) Write-ups are inserted in leading newspapers;

(iii) Exhibition of slides in most of the leading cinemas;

(iv) A cinema car and a cinema lorry give free shows advertising the facilities provided;

(v) Handbills, posters, folders, etc., are issued;

(vi) Personal contact with commercial bodies is made by the Sales organisation;

(vii) Publications are issued giving particulars of all railway commercial matters. These are available for sale at book-stalls and the larger railway stations at a nominal price. A " Directory of Commodities " designed to enable the commercial community to get in touch with others in the same line of business, is published and sold by the Railway's Headquarters' office at a nominal price.

(viii) A comprehensive mailing list of individuals and firms is maintained at the Headquarters Office of the Railway, for the distribution of free literature. Advertisements in the press invite applications from others for any literature they require. This form of publicity became so popular that an issue of 10,000 copies of a pamphlet was exhausted in two months and a reprint had to be arranged.

South Indian Railway.—Traffic Canvassers maintain close touch with the business community to ascertain their needs, and acquaint them with the various facilities and rates offered by the Railway. Concessions in fares and

goods freights are notified by advertisements and the issue of leaflets and posters.

58. Mela traffic.—Special arrangements were made by railways to deal with the large movement of passengers to places of religious importance and for the more important melas by increasing the normal load of ordinary passenger trains and the running of additional trains. The quotation of special fares where conditions warranted such action, the provision of additional booking offices, waiting sheds, sanitary arrangements, medical facilities and improvements in water-supply were among the amenities to which attention was specially given. In the following paragraphs mention is made of some of the more important *melas* for which special arrangements were made.

Bengal and North-Western Railway.—The "Kartick Purnamashi" *mela* held on the 28th November 1936, at Sonepore, Paleza Ghat, Hajipur, Semaria Ghat, Balia and Ajodhya Ghat necessitated the running of 187 special trains.

Bombay, Baroda and Central India Railway.—District Traffic Superintendents arranged for an intensive campaign to popularise fairs and festivals on their districts, and special publicity was given to the following :—

Kailadevi fair at Hindaun city.

Mahabirji fair at Pataunda Mahabir Road.

Khwaja fair }
Pushkar fair } at Ajmer.

Indian Industrial fair at Marine Lines, Bombay.

In the case of large fairs of an all-India importance, publicity arrangements were made in collaboration with the Central Publicity Officer.

East Indian Railway.—The more important fairs were :—

Pirankaliar *mela*, Roorki—June 1936.

Pitripukh *mela*, Gaya—October 1936.

Kartiki *mela* at Garmukhtesar—November 1936.

Magh *mela* at Allahabad—January 1937.

United Provinces Industrial and Agricultural Exhibition—Lucknow—1936-37.

The last-named Exhibition was organised by the Government of the United Provinces at Lucknow from the 5th December 1936 to 24th February 1937. At stations in that province supplementary entrance tickets to the Exhibition at a low additional cost were made available to purchasers of third class tickets to Lucknow. Third class return journey concession tickets at week-end return journey rates were issued from all stations available for seven days; and specially reduced third class return journey fares on a basis lower than the week-end concessions but slightly higher than single journey fares were quoted from the more important centres in the United Provinces.

Great Indian Peninsula Railway.—The most important annual *melas* were the Ashadi and Kartiki fairs held during the months of July and November respectively at Pandharpur *viâ* Kurdawadi. Return tickets at concession fares were issued from Poona, Ahmednagar, Nasik Road and Karjat. The following facilities were also arranged :—

(i) Special trains.

(ii) Additional food-stalls.

(iii) Sanitary and medical arrangements which included anti-cholera measures and the inoculation of pilgrims;

(iv) A booking office at Pandharpur at the site of the fair;

(v) Water for drinking purposes railed by travelling water tanks from Bhalavni;

(vi) For the Kartiki fair sweepers were deputed to travel with the special trains.

For the Dehu fair at Shelarwadi cheap return tickets were issued from Bombay and Poona. In addition all passengers booked to and from Shelarwadi from and to stations between Bombay and Poona were allowed to travel by mail and express trains on payment of the ordinary fares.

North Western Railway.—With the exception of Kurukshetra where the " Solar Eclipse " fair is held, there is no pilgrim centre of all-India importance on this railway. Nankana Sahib, however, where the Puranmashi fair is held in November each year attracts large numbers of Sikhs.

Arrangements were made for passengers purchasing tickets at temporary booking offices opened in the vicinity of lorry stands at Amritsar and Lahore to be taken in lorries to the railway station without any additional charge. Similar arrangements were made at Sargodha, in connection with a Horse Show held there in March 1937, holders of return tickets being carried by lorries from Sargodha station to the Show grounds and back.

59. Wagon Position.—On the broad gauge the number of wagons loaded totalled 4,443,712 being an increase of 146,477 or 3·41 per cent. over the previous year. Hitherto the highest average number of wagons loaded daily in any period was 14,342 in the week ending 26th January 1929 but this was exceeded during four periods in January, February and March 1937, the highest loading on record being attained during the period ending 20th March with a daily average of 14,636 wagons.

In December 1936 the demand for wagons exceeded the available supply and the position was aggravated by labour troubles on the Bengal Nagpur Railway, which lasted from 13th December 1936 to 11th February 1937. In order to augment the wagon supply, action was taken :—

(*a*) to suspend the rules regulating the periodical overhaul of wagons, from about the middle of January until the end of March 1937. Wagons falling due for overhaul during this period were permitted to continue in service,

(*b*) to retain for local service wagons which though fit to run would normally have been under repairs.

These measures necessitated on some railways the adoption of special arrangements to keep shops employed whilst the inflow of wagons for periodical overhaul was suspended. The effect of the action taken made itself felt by 20th February 1937 when the demand for wagons began to be met in full. While the foregoing indicates the general position on the broad gauge the following paragraphs in regard to individual railways may be of interest :—

(i) *Assam Bengal Railway.*—As booking of elephants, horses and motor cars was exceptionally heavy during certain periods of the year, stock had to be obtained on loan from the Eastern Bengal Railway. Provision has been made for four new motor vans in the rolling stock programme for 1938-39.

(ii) *Bengal and North-Western Railway.*—Considerable difficulty was experienced in meeting all demands for stock during the period of peak traffic. Eastern Bengal Railway stock, which had been borrowed, afforded a certain measure of relief but temporary restrictions on certain types of traffic had to be imposed. The special sugar-cane stock is being augmented by 400 trucks which will release a number of general service wagons for other traffic. 400 more general service wagons are also being obtained.

(iii) *Bombay, Baroda and Central India Railway.*—On the broad gauge section, there was a heavy demand for goods stock on account of increased traffic during the months of April, June and December 1936 and January 1937 which made the stock position a little difficult.

There was an abnormal increase in December 1936 and it was exceptionally heavy also in January 1937.

Special efforts were made to speed up the turn round of stock and as a result, on the broad gauge, during the busy period a figure of 442 net ton miles per wagon day was obtained which was 17 per cent. better than the

previous record of 376 in May 1925; at this time the wagon miles per wagon day were 47·8 and this was again exceeded in February 1937 when the figure rose to 49·1.

(iv) *Eastern Bengal Railway.*—On the broad gauge, difficulty was experienced in meeting in full the demands for wagons during the period October 1936 to January 1937. The shortage was accentuated during December 1936 and January 1937 when about 600 wagons had to be utilised for running stone trains for the Hardinge Bridge Protection works. A considerable number of broad gauge wagons was also required in connection with the Gorai Bridge reconstruction, Rajbari yard remodelling and various other engineering works.

On the metre gauge section, from the middle of February to the end of March 1937, great difficulty was experienced in meeting all demands for stock, due mainly to a large number of wagons being absent on the Bengal and North-Western Railway.

(v) *East Indian Railway.*—The demand for wagons for goods loading after the 9th January 1937 could not be met in full and the loading of unessential goods traffic such as firewood, bullies, sand, lime, etc., was restricted from the 10th to the 14th January 1937. General loading was also restricted from the 29th January to the 17th February 1937, preference being accorded to live-stock, perishables (including sugar-cane), foodstuffs and military and Government consignments.

(vi) *Great Indian Peninsula Railway.*—When owing to a rush of traffic in December 1936, a shortage of wagons was experienced, open wagons were freely used for the carriage of grain and seeds (excepting oil and cotton seeds) on these sections of the line where winter rain was not expected without the execution of special risk notes freeing the administration from loss due to damage.

(vii) *Jodhpur Railway.*—During the last quarter of the year, the volume of traffic offered was greater that could be carried with the existing wagons. Arrangements have been made for the purchase of 200 new wagons.

(viii) *Madras and Southern Mahratta Railway.*—In December 1936, export traffic in groundnuts through the ports of Madras, Masulipatam, Cocanada and Mormugao was extremely heavy. Loadings increased and reached the peak about the middle of January 1937.

At certain tranship stations there was at times an accumulation of loads beyond the normal capacity of the station. To reduce the congestion, night transhipment with additional staff was resorted to.

(ix) *North Western Railway.*—From the middle of December 1936 there was a steady increase in goods traffic until the end of January 1937, when about 7,000 wagon loads were waiting to be loaded. Simultaneously there were heavy receipts of coal from the Bengal coalfields.

In order to ease the situation, measures for the quicker loading and release of wagons were introduced, efforts were made to reduce the time of goods in transit through junctions and on the road. Goods sheds particularly at the larger stations were opened for work on Sundays, in order to speed up the turn round of wagons. Loading of non-essential commodities was also restricted for about 10 days.

60. Neutral examination of interchanged Wagon Stock.—The staff working under the Director of Wagon Interchange continued to examine wagons interchanged between railways at the following junctions :—

Agra Cantonment.	Khanalampura.
Ajni-Nagpur.	New Delhi.
Chheoki.	Raichur.*
Ghaziabad.	Waltair.

* Only up to 30th September 1936, the experiment of Single Control having been introduced on and from 1st October 1936.

Quarry Workings.

The thickness of the coal seam quarried is 90 feet (roof to floor) and is one of the thickest in the world.

The system of neutral umpires introduced in July 1932 at Gomoh and in February 1934 at Katni Murwara, was continued.

61. Railway Collieries.—The output from the principal railway collieries during 1936-37 compares with the previous year's output as follows :—

Colliery.	Owned by	Output (tons).	
		1935-36.	1936-37.
1. Joint Bokharo . . .	E. I. & B. N. . .	611,501	**769,848**
2. Joint Sawang . .	E. I. & B. N. . .	50,641	**55,913**
3. Kurharbaree and Serampore .	State	712,963	**665,578**
4. Bhurkunda	State	86,900	**67,167**
5. Kargali	State	435,340	**576,581**
6. Argada	B. N.	257,032	**259,573**
7. Talcher (now known as 'Deulbera').	B. N.	157,939	**29,974**
8. Jarangdih	B., B. & C. I. and M. & S. M.	103,462	**77,273**
9. Talcher	M. & S. M. . . .	156,290	**158,482**
10. Kurasia	B., B. &. C. I. . .	153,332	**179,882**

State Railway Collieries.

(i) *Bhurkunda Colliery.*—All new development work was held in abeyance, but an increased demand for Railway colliery coal towards the end of the year following short supplies of market coal necessitated the re-opening of inclines in the Kurse and Nakari seams and preparations were made for pillar extraction in No. 1 Kurse Incline.

In the Simana seam most of the main drivages to the East reached the outcrop and colliery boundary on the South. A series of step faults were encountered in the dip workings in Nos. 3 and 4 Simana Workings and several stone heads were carried in advance to prove the measures beyond the faulted areas.

In the Sirka seam the entrance to No. 1 Incline workings was secured by side walls and reinforced concrete roofing and a shallow shaft connecting the 1st level was sunk for the purpose of ventilation.

Adequate ventilation was maintained in the underground workings and all roadways not naturally wet were kept free from coal dust.

Power House and Electrical Plant.—Both Turbo and Boiler Plant were overhauled during the earlier part of the year and all surface and underground electrical plant were maintained in good working order. One 550 Volt overhead transmission line was put into the Sirka area and an underground cable laid to the Sub-station in the Sirka Seam Incline.

Several blocks of miners' houses were re-roofed during the latter part of the year.

An ample supply of drinking water was provided throughout the year and, with the exception of a few isolated cases of small-pox, the health of the staff and sanitation was satisfactory.

(ii) *Kargali Colliery.*—The output both from the quarries and underground workings was well maintained and during the latter part of the year extra tonnage had to be raised owing to short supplies of market coal.

No development work of importance was carried out during the year.

Quarries.—The total length of quarry face is now 6,000 feet and throughout the whole length a double broad gauge track has been laid.

During the year additional overburden bridges of 60 feet spans have been built and new tipping lines have been provided for the disposal of overburden to the 'rise' side of the quarry. The average section of rock and shale overburden being stripped is 68 feet almost all of which requires blasting.

All the old fires which occurred some years ago in the quarry slack dumps are practically burnt out and no further danger from the spread of fire is anticipated.

Underground workings.—Normal development at the shafts and incline was carried out and the underground workings were maintained in good working condition. Most of the galleries to the East in the Shaft Workings have now reached the colliery boundary and a barrier of 225 feet has been left to protect the Kargali seam workings from those of the adjoining colliery where depillaring is being carried out in the seam.

Under the new Mines Regulations all underground roadways not naturally wet have to be periodically watered or stone dusted and to comply with this regulation about five miles of 2″ Pipe Lines have been laid to carry water for spraying the various districts underground. Safety lamps are still used both at the shafts and incline as a precautionery measure and all blasting is carried out by the use of 'Permitted' Explosives.

Adequate ventilation is provided by a mechanical ventilator and during the past year the underground workings have been remarkably free from fire damp.

During the monsoon period additional pumping had to be carried out in the East Dip Shaft Workings owing to depillaring operations at the neighbouring colliery.

All colliery plant on the surface and underground was maintained in good condition and with the exception of one electrical breakdown at the quarry pumping shaft there was no other trouble.

Various repairs to surface buildings and miners' houses were carried out during the year and the new screening plant gantry in reinforced concrete was put into commission at the main shafts.

Labour in the quarries was plentiful but during the latter part of the year there was a distinct shortage of underground workers at the pits and incline.

The water supply throughout the year was adequate and the general health of the staff and sanitation were satisfactory.

Power House.—Throughout the year all plant was maintained in good running order and a continuous supply of current was made to Kargali, Joint Bokharo, Jarangdih and Dhori collieries.

During the year under review 5,358,360 units were generated.

(iii) *Giridih Collieries.*—(a) *Serampore Colliery.*—Development was satisfactory and percentage of extraction even in the difficult working faces was well maintained.

The supply of labour was, owing to a bumper rice crop, very poor and raisings were seriously affected. In the earlier part of 1937 an unprecedented number of marriages took place and this again was responsible for a considerable reduction in output. The output for the period under review was 394,476 tons and coal despatches to Railways amounted to 379,233 tons.

Adequate precautions against the danger of coal dust were taken and a number of water sprays were put into commission on main haulage roads and on some of the return airways. Arrangements are now in hand for stone dusting in the return airways.

Ventilation in all mines was adequate and during the year there were no fresh outbreaks of underground fires.

All underground haulage engines, houses and pump houses have, to comply with the new Mines Regulations, been made fire proof.

In No. 8 side, Deep Pit, an area of very disturbed ground was met but development was pushed on as far as possible.

On the 2nd July 1936, 3·56″ of rain fell in $3\frac{1}{2}$ hours and the result was an unprecedented inrush of water through surface breaks into No. 16-A South Side Workings. Eventually the water found its way to the Deep Pit Pumps where it was effectually dealt with. A temporary diversion has now been cut to divert all surface water from this area and the danger of a similar occurrence has been removed.

Two 3,000-gallon per hour pumping units were installed at the Central pits to dewater the shaft pumps and admit of guide rope inspection.

At 16-A Pit the erection of an 18 H.P. direct haulage was completed.

(b) *Kurharbaree Colliery.*—Raisings from this area were considerably hampered by the shortage of labour during the monsoon period and again during the harvesting season.

Underground development was advanced as far as practicable and pillar extraction was carried out satisfactorily, no less than 85 per cent. recovery usually being obtained.

Ventilation in all mines was adequate and no fire damp was reported in any of the workings.

Precautionary measures for the treatment of coal dust were satisfactory. Water sprays were installed on main haulage roads in both Jubilee and Joktiabad pits. Arrangements have also been made to provide for stone dusting principally in the return airways.

The new lamp house was completed at the Jubilee pits and 1,000 electric safety lamps were put into commission at these pits.

One 3,000-gallon per hour pumping unit fitted with flame proof motor and switch gear was put into commission at No. 1 Jubilee East Side and two similar units were put into No. 5 Side Joktiabad.

Two 15,000-gallon per hour pumping units were also installed in No. 1 Side Kolimoram Pit.

In August 1936, at Joktiabad No. 18 Side, the dip pumps were submerged owing to an inrush of water during heavy rain. The pumps were subsequently recovered.

Power House.—All steam and electrical plant was maintained in good running order.

During the year under review 13,580,763 units were generated.

Coke and Bye-Products Plant.—This continued to work satisfactorily and the full battery of ovens was put into commission in July 1936.

The outturn from the plant was as follows :—

Coke	38,252	tons.
Coal tar	1,420	,,
Sulphate of ammonia	382	,,
Benzol	49,110	gallons.
Rectified solvent naphtha	1,150	,,

All colliery plant was maintained in good running order and the usual repairs to surface buildings were carried out.

With the exception of a few cases of small-pox and malaria, the general health of the station and sanitation were satisfactory.

(iv) *East Indian and Bengal Nagpur Railways' Joint Bokharo Colliery.*—Raisings from all quarries were well maintained throughout the year, and during December and January despatches were increased to the maximum to meet short supplies of market coal.

The area to the east of the Goda Nalla was prospected during the earlier part of the year and quarriable coal approximately 100 feet thick was proved below 30 feet or rock overburden.

In view of the continued coal shortage, arrangements have been made to develop this area. Overburden stripping has already commenced and a sinking pump and endless rope haulage installed to transport the coal to the main loading depôt.

The fire which occurred in the old slack and shale dump in No. 5 Quarry has been satisfactorily dealt with, and there is now no danger of its spreading towards the coal barrier left for the support of the railway line.

Nos. 1 and 3 quarry workings continued satisfactorily and every effort is being made to speed up the stripping of overburden to provide uncovered coal for future requirements.

The new pumping shaft in No. 1 quarry has been completed and a large area of coal is now available for working in the south-east corner of this quarry.

All steam and electrical plants were maintained in good running order, and there was no breakdown during the year. A small pumping unit was installed near the Damodar river in November to augment the supply of drinking water.

Repairs to surface buildings and miners' houses were carried out as usual, and the construction of a new isolation hospital was commenced during the latter period of the year.

The supply of labour was satisfactory throughout the year and was sufficient to give the normal output.

The colliery water supply was adequate and the general health of the staff and sanitation satisfactory.

(v) *East Indian and Bengal Nagpur Railways' Joint Sawang Colliery.*—No constructional work or new development was carried out.

Practically the whole of the output was obtained from the surface quarries.

Steam plant and underground machinery were maintained in good working order and the usual repairs to buildings were carried out during the latter part of the year.

The Incline workings which were inundated during the monsoon of 1935 were dewatered in June 1936 and normal working continued in the eastern section of the mine.

With the exception of a few cases of malaria and small-pox, the general health of the station was satisfactory.

Bombay, Baroda and Central India and Madras and Southern Mahratta Railways' Jarangdih Colliery: Shaft workings.—Gallery driving in the shaft workings was continued. The shaft workings were closed on 31st May 1936.

Coal winning was confined to the West Rice section, where progress was good, as the section was comparatively free from gas.

The fittings of No. 2 Shaft with rail guides and the withdrawal of the rope guides was completed in July 1936. All machinery, rails, etc., were withdrawn from the shaft workings.

The shaft pumps were stopped on 14th July 1936, with the water level 7 feet below pump chamber floor. The pumps were withdrawn. On 18th July 1936, water had reached the level of the pump chamber floor. On 1st August 1936, water level was $5\frac{1}{2}$ feet below the rail level of the dumper. On 1st September 1936, water level reached the top of the inset at No. 1 Shaft and the fan was stopped.

On 8th April 1937, the water level was 255 feet above the rail level at the dumper and 20 feet below the bottom of the sand bore pipe which has served as a vent for the air and gas trapped in the Rise workings.

Brickwalls were built round No. 2 Shaft top and round the top of the sand bore hole to prevent accidental ignition of the escaping gas.

Incline workings.—Gallery driving during the year at the incline workings was continued. Development proceeded normally but rather slowly owing to the change of contractor—the new contractor being unable to provide an adequate labour force to give the required output.

Connection of No. 5 Incline with surface was completed. A 150 H.P. haulage was installed and coal raising from No. 5 Incline commenced during July 1936.

A 50 H.P. endless haulage was installed to haul loads raised from No. 3 and from No. 5 Inclines to the loading depôt. This haulage was put into commission on 1st May 1936.

A 20 H.P. Pump was installed in a permanent position in No. 6 Dip at No. 11 South Junction. All pumps operated satisfactorily.

A Sirocco fan was installed to ventilate the incline workings and commenced working on 8th April 1937.

Bombay, Baroda and Central India Railway's Kurasia Colliery.—The following is a brief report on the principal works done at Kurasia Colliery during the year under review :—

Labour quarters.—The 14 blocks of Dhowrahs were completed.

Staff quarters and buildings.—One block of two units senior subordinate quarters was completed.

Power House.—The following works in the extended portion of the Power House were taken in hand and some were completed :—

Building Power House Office and Stores was completed.

The steam pipe line for No. 3 Engine and the cable connection of Generator No. 2 with the Switch Board were completed.

The circulating water pipe line and connections for No. 2 Engine and the Power House front pavement were completed.

The erection work of No. 2 Engine and Generator was taken in hand.

The erection of the new Belliss Set was undertaken but could not be completed.

Development underground.—The total progress during the year is given below :—

No. 2 Incline	547 feet.
No. 3 Incline	299 ,,

Madras and Southern Mahratta Railways' Talcher Colliery.—There are two seams at Talcher. The best coal is in the lower seam, about 14 feet thick, roughly 400 feet below the surface. There is an upper and thinner seam about 70 feet above the lower one.

Development has been hitherto in the lower seam, but this has been lost at faults on the North, West and South sides, and it has been possible to continue development on the East side only. A gallery driven beyond the fault to the North of the main pit met the upper seam, at very nearly the same level as the lower seam development, but the upper seam is irregular in thickness and floor level and the coal is mixed with much rock and shale which it is difficult to separate from the coal. Further exploration is to be undertaken as it appears possible that the lower seam will be met not far beyond the fault on the North side.

Bengal Nagpur Railway's Deulbera (previously known as " Talcher ") Colliery at Talcher.—The work on the development of this colliery was completed during the year under review.

Coal mined in India.—In 1936 the coal mined in the various provinces of British India amounted to 20,583,962 tons as against 21,014,469 tons in 1935, or a decrease of 430,507 tons.

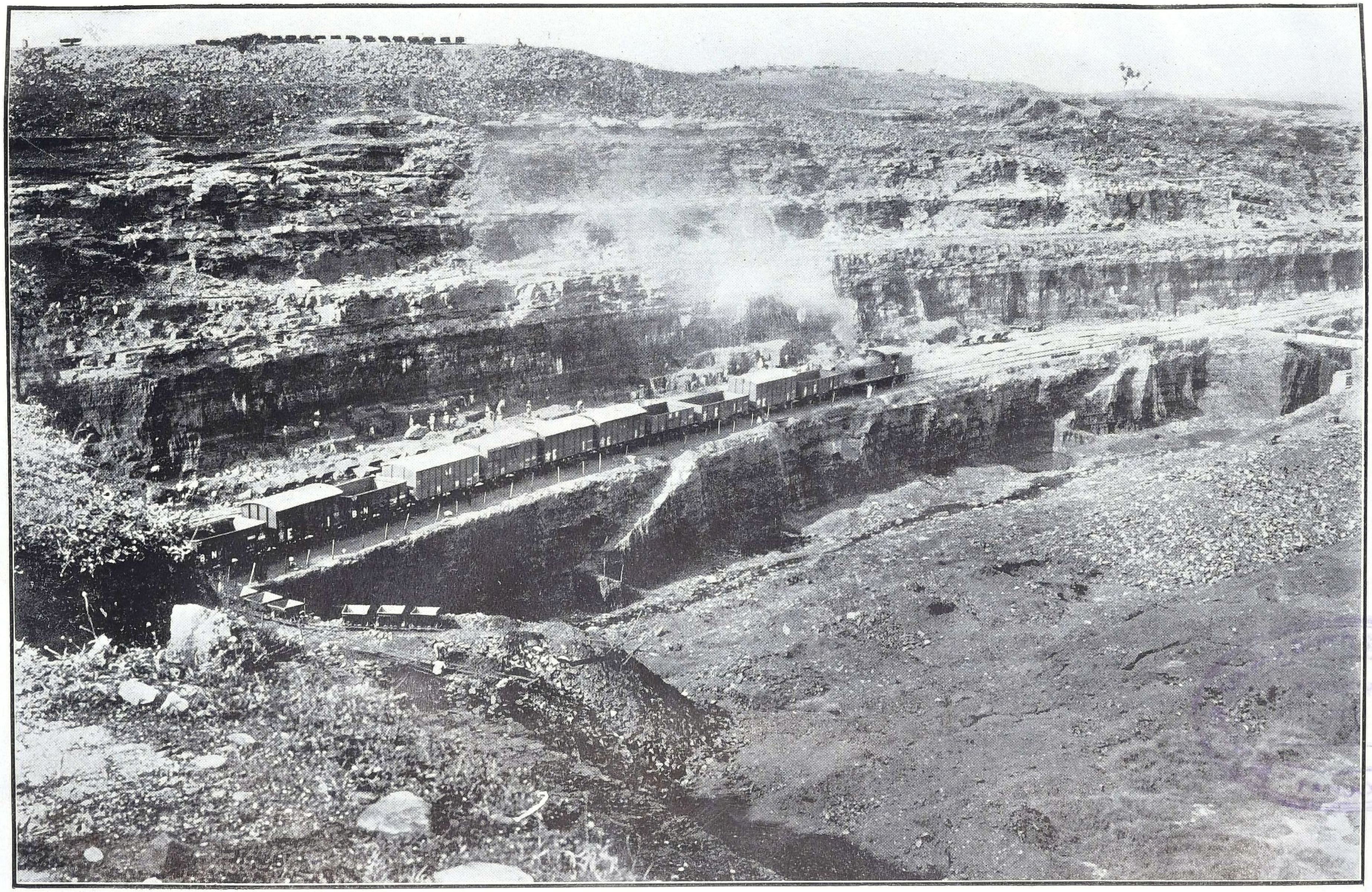
Quantity of coal despatched by rail.—The quantity of coal carried by the East Indian and Bengal Nagpur Railways was as follows :—

East Indian Railway	13,144,718 tons.
Bengal Nagpur Railway	7,350,263 ,,

Shipment of coal from Calcutta.—Shipments including bunker coal from the Port of Calcutta to Indian and foreign ports during 1936-37 amounted to 2,274,516 tons, of which 252,644 tons were on account of Indian railways as compared with 280,869 tons in 1935-36. 59,117 tons of Indian coal were shipped to the Ceylon Government Railway.

Tonnage of coal inspected by the State Railway Coal Department.—The State Railway Coal Department inspected 6,713,053 tons coal during 1936-37 as compared with 6,332,104 tons in 1935-36.

Indian Coal Grading Board.—The State Railway Coal Department continued to carry out work on behalf of the Indian Coal Grading Board during the year. The amount of cargo coal shipped under the Indian Coal Grading Board to various ports during 1936 was 1,687,356 tons, and inspections were carried out by this department both at the collieries and Kidderpore docks.



Quarry Workings.

Broad gauge loading lines in 60 feet Seam Outcrop.

CHAPTER V.

ROLLING STOCK AND MATERIALS.

62. Additions to equipment.—During the year the following rolling stock, including arrears brought forward from previous years, was ordered for broad and metre gauge railways :—

Items.	Broad Gauge.	Metre Gauge.
Locomotives	33	47
Coaching stock	875	829
Goods stock	1,863	1,271

Those actually placed on the line by the end of the year were as under :—

Items.	Broad Gauge.	Metre Gauge.
Locomotives	16	21
Coaching stock	386	288
Goods stock	1,113	552

The numbers of coaching and goods stock are in terms of four-wheelers, a bogie being reckoned as two four-wheelers. These figures do not, however, represent the actual net additions to rolling stock as they also include stock built in replacement of stock which had reached the end of their useful life.

No broad or metre gauge locomotives were obtained as additions during the year. On the broad gauge 107 locomotives were scrapped during the year, of which 16 were replaced so that the number of locomotives on 31st March, 1937, was 91 less than at the beginning of the year. The number of metre gauge locomotives at the end of the year was 16 less than at the beginning, 37 being scrapped during the year, 21 of which were replaced. The average tractive effort per engine rose in the course of the year from 25,717 lbs. to 25,862 lbs. on the broad gauge and from 15,158 lbs. to 15,211 lbs. on the metre gauge.

Coaching vehicles.—There was no addition to the number of coaching stock on the broad and metre gauge. The number of broad gauge coaching vehicles at the end of the year was 70 less than at the beginning, due to 456 being scrapped during the year, of which 386 were replaced. On the metre gauge, the number of coaching vehicles at the end of the year was 98 less than at the beginning, 386 being scrapped during the year, of which 288 were replaced.

Wagons.—There was no addition to the number on the broad and metre gauges; on the broad gauge 2,169 wagons were scrapped during the year against an addition of 1,113. On the metre gauge, 1,013 wagons were scrapped during the year and 552 wagons were added.

The graphs on the following pages show the total numbers of locomotives, boilers, carriages and wagons provided for in the programmes of Class I Railways during the past eleven years. These figures include replacements and renewals.

63. Supply of rails and fishplates from indigenous sources.—During the year under review orders amounting to approximately 76,000 tons of rails and 3,000 tons of fishplates were placed with Messrs. the Tata Iron and Steel Company, Limited.

64. Purchase of timber for Carriage and Wagon building.—The consumption of timber for Carriage and Wagon building rose by some 6 per cent. in value above the figure for the previous year, owing to increased construction. The total value of the timber other than sleepers bought by Class I Railways (other than His Exalted Highness the Nizam's State and the Jodhpur Railways) during the year was Rs. 42·75 lakhs, compared with Rs. 40·28 lakhs in 1935-36, Rs. 30·46 lakhs in 1934-35, Rs. 21·51 lakhs in

1933-34 and Rs. 14·17 lakhs in 1932-33 when construction was at a minimum. By contrast, in 1927-28, when construction was active, the expenditure was Rs. 140·6 lakhs.

The seasoning kilns at Lillooah, East Indian Railway, remained closed, chiefly owing to the price of teak, with which kiln seasoned woods of other species could not compete (the teak is used without kiln seasoning). Further evidence on the behaviour of the timber seasoned in the Lillooah kilns and now in use in coaches and wagons was under collection and analysis during the year with a view to correct comparisons between teak and other woods for various purposes.

The examination of sawmill wastage continued and progress was made towards uniform methods of calculating this wastage and costing scantlings of various sizes correctly. Timber consumption volume figures for 1936-37 are not yet available in an accurate form. The corrected figures for 1935-36 show that the total consumption in that year by all Class I Railways, other than the Burma Railways, His Exalted Highness the Nizam's State Railway and the Jodhpur Railway, was 36,843 tons in terms of round logs, compared with 34,173 tons in 1934-35. The percentage of Burma teak bought in 1935-36, in terms of round logs, was approximately 42, compared with 37 per cent. in 1934-35. The rise is believed to be due mainly to the increase in new construction, for which Burma teak is in special demand, whilst cheaper woods are used rather for repairs and rough work such as wagon floor boards.

65. Wooden Sleeper Purchase Organisation.—The total purchases of wooden sleepers during the last three years have been :—

(Number of sleepers in lakhs.)

	1934-35.	1935-36.	1936-37.
Broad Gauge	12·09	12·33*	15·05
Metre Gauge	13·90	14·11	14·83
Narrow Gauge	1·51	1·42	1·71

The relative position of the various kinds of sleepers can be seen from the following percentages, based on the total number of sleepers in the track of Class I Railways :—

	1936-37.			
	Wood.	Cast Iron.	Steel.	Other kinds.
Broad Gauge . .	42·7	39·7	17·4	0·2
Metre Gauge . .	71·3	5·8	22·8	0·1

The wooden sleeper track mileage of all gauges on Class I Railways on March 31st, 1937, was 27,750 out of a grand total of 53,147 miles.

No wooden sleepers were imported from abroad. The prices of *sal* sleepers in the Eastern Group in 1936-37 averaged about Rs. 4-10-10 for broad gauge and Rs. 1-11-3 for metre gauge during the year, compared with Rs. 5-1-2 and Rs. 2-0-1 in 1935-36.

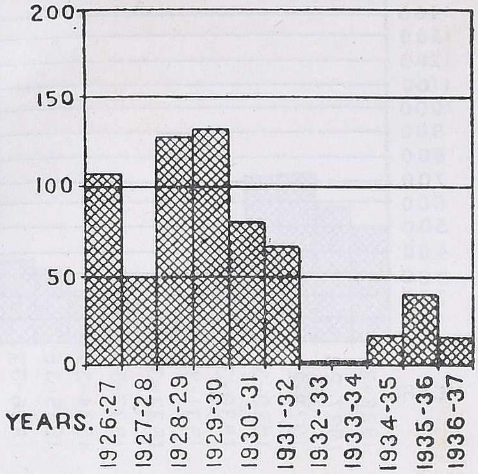
At Dhilwan on the North Western Railway the following soft wood Broad Gauge sleepers from coniferous trees were impregnated with a mixture of 40 per cent. creosote and 60 per cent. fuel oil :—

—	Fir.	*Chir* pine.	*Kail* pine.	Deodar.	TOTAL.
1. Number of sleepers treated . . .	47,597	188,678	53,473	116,755	406,503
2. Average absorption of creosote per sleeper	6·0 lbs.	6·0 lbs.	5·84 bs.	4·0 lbs.	..
3. Average absorption of liquid fuel . .	9·0 ,,	9·0 ,,	8·76 ,,	6·0 ,,	..
4. Average total absorption per sleeper .	15 ,,	15 ,,	14·60 ,,	10 ,,	..
5. Approximate average absorption per cubic foot.	4·80	4·80	4·49	3·20	..

* This figure corrects the figure (12·29) shown last year.

(1)

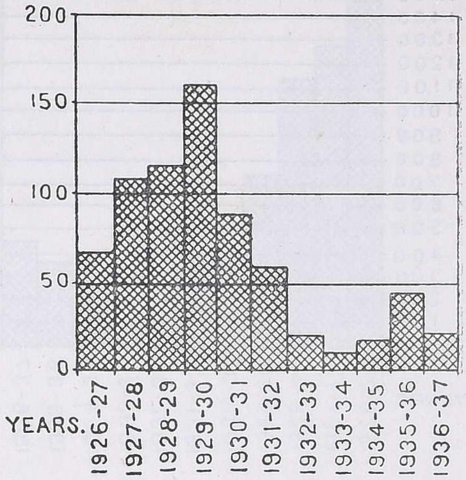
BROAD GAUGE.



Number of locomotives provided in the rolling stock programme.

(2)

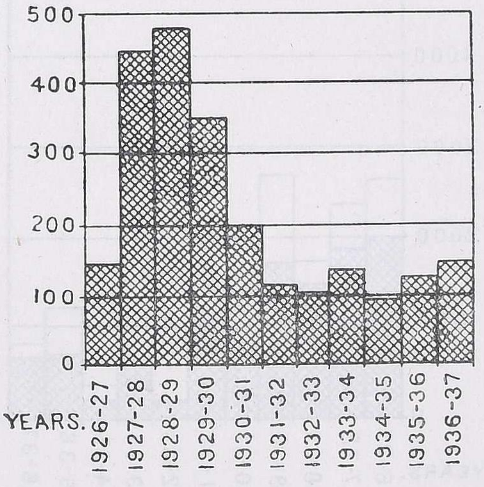
METRE GAUGE.



Number of locomotives provided in the rolling stock programme.

(3)

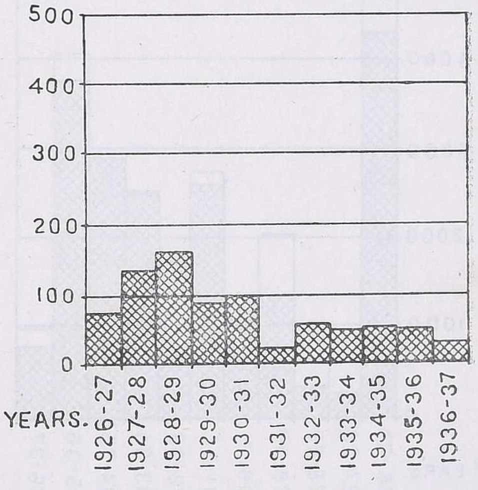
BROAD GAUGE.



Number of boilers provided in the rolling stock programme.

(4)

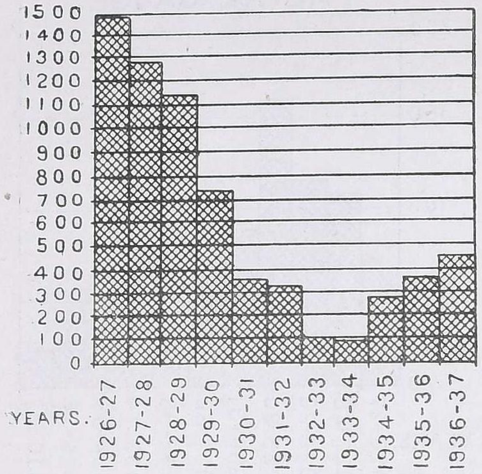
METRE GAUGE.



Number of boilers provided in the rolling stock programme.

(5)

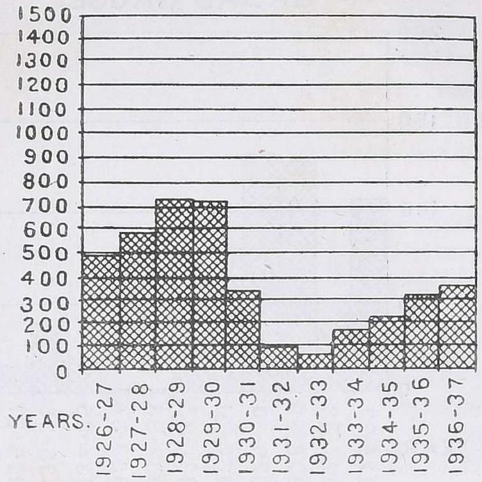
BROAD GAUGE.



Number of coaching stock units provided in the rolling stock programme.

(6)

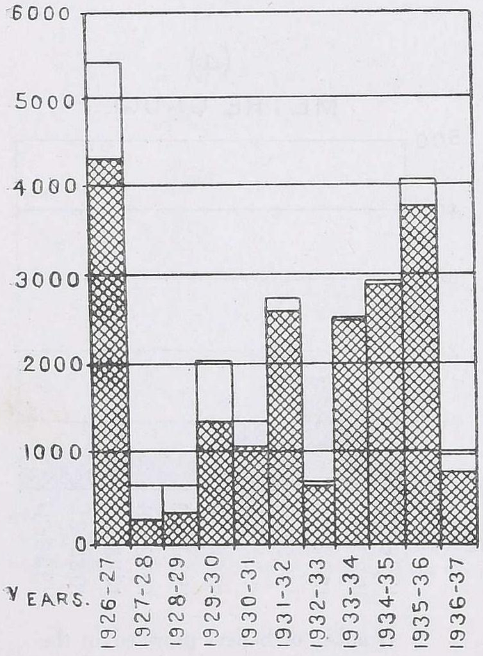
METRE GAUGE.



Number of coaching stock units provided in the rolling stock programme.

(7)

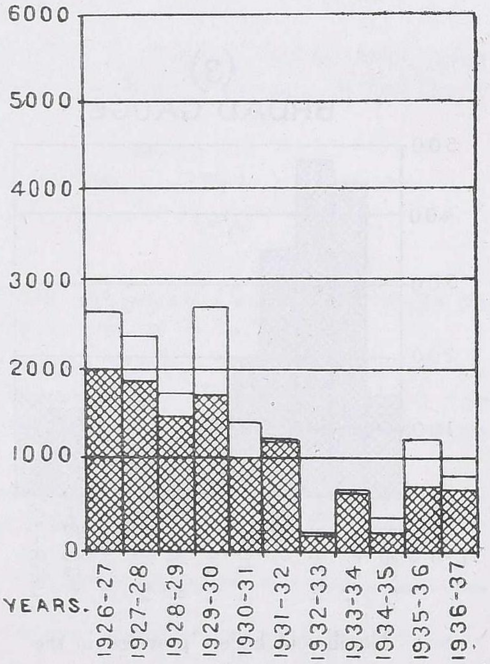
BROAD GAUGE.



General service and other types of wagons in units provided in the rolling stock programme.

(8)

METRE GAUGE.

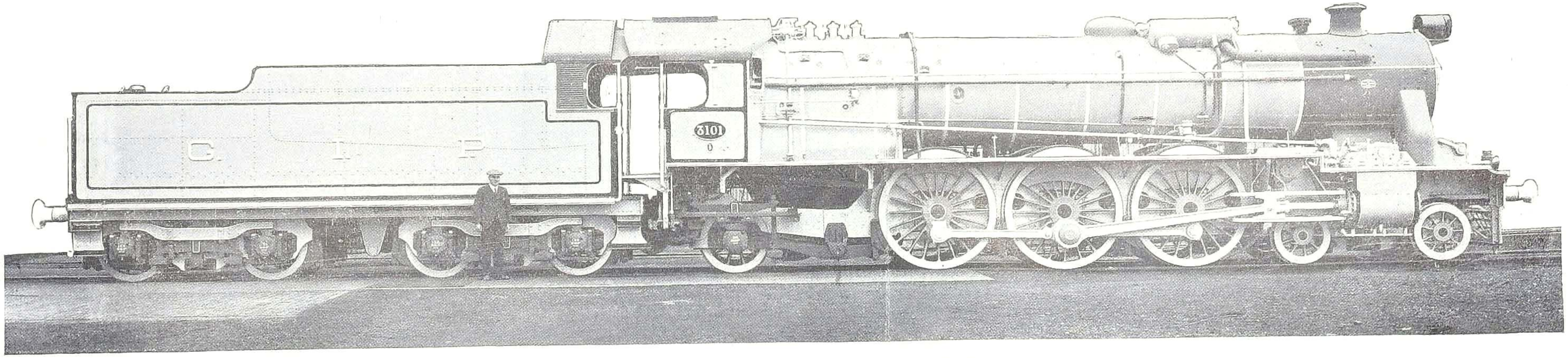


General service and other types of wagons in units provided in the rolling stock programme.

General service wagons shown thus

Other types shown thus

GREAT INDIAN PENINSULA RAILWAY.



"X.P." Type, 4-6-2 Passenger Locomotive.

This engine is fitted with roller bearings to all wheels.

The prices of the sleepers, including all charges except freight were :—

—	Cost of untreated sleepers.	Cost of treating per sleeper, including overheads at Dhilwan.	Sleeper Pool Control charges.	Total cost of treated sleeper excluding freight.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Deodar	4 12 2	0 14 10	0 2 2	5 13 2
Kail pine	3 8 3	1 1 6	0 2 2	4 11 11
Chir pine	3 1 8	1 7 8	0 2 2	4 11 6
Fir	2 12 11	1 0 5	0 2 2	3 15 6

The cost of treated sleepers decreased owing to the larger number treated and hence the lower cost of treatment.

NOTE.—The figures for treated sleepers in the report for 1935-36 excluded the Sleeper Pool Control charges of Re. 0-3-11 per sleeper in that year whereas this year the control charges are included.

The total amount spent on wooden sleepers on Class I Railways (excluding His Exalted Highness the Nizam's State and the Jodhpur Railways but including the Burma Railways) was Rs. 1·12 crores compared with Rs. 1·14 crores in 1935-36, Rs. 1·06 crores in 1934-35, Rs. 0·92 crores in 1933-34, Rs. 1·27 crores in 1932-33 and Rs. 1·59 crores in 1931-32.

The annual meeting of the Sleeper Pool Committee was held at New Delhi on the 9th November, 1936.

66. Value of railway materials purchased.—The value of Stores purchased by Class I Railways (excluding His Exalted Highness the Nizam's State and Jodhpur Railways which are mainly the property of Indian States) amounted to Rs. 13·64 crores during 1936-37; this was a decrease of Rs. 1·93 crores as compared with the year 1935-36. The principal decreases, as indicated in the Statement below, were under rolling stock (Rs. 139 lakhs) and stores hardware, copper, tin and zinc ware, etc. (Rs. 18 lakhs), all other stores (Rs. 17 lakhs) and permanent way material and track tools (Rs. 16 lakhs). Of the total decrease of Rs. 1·93 crores, Rs. 0·99 crores were under " imported materials " and Rs. 0·94 crores under " indigenous materials "; the decrease under the former was mainly under rolling stock (Rs. 79 lakhs), all other stores (Rs. 11 lakhs) and stores hardware, copper, tin and zinc ware, etc. (Rs. 8 lakhs), whereas under the latter it was mainly under rolling stock (Rs. 60 lakhs), permanent way material and track tools (Rs. 17 lakhs) and stores hardware, copper, tin and zinc ware, etc. (Rs. 10 lakhs).

(Figures in lakhs of rupees.)

Particulars.	VALUE OF IMPORTED MATERIALS.			Value of indigenous materials.	TOTAL PURCHASES.	
	Purchased direct.	Purchased through Agents in India.	Total imported materials.		1936-37.	1935-36.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
A. Bridge works and its parts, fittings and special fastenings.	1	1	2	18	20	13
B. Engineering plant and components including all hand and power machinery.	1	10	11	1	12	9
C. Workshop machinery, plant and equipment including pneumatic machinery and tools.	11	11	22	2	24	27
D. Permanent way material and track tools	7	11	18	2,65	2,83	2,99
E. Rolling stock	68	88	1,56	69	2,25	3,64
F. Building materials, water mains, sewage system and track and yard enclosing material and signal and Interlocking material, etc.	2	15	17	24	41	51

(Figures in lakhs of rupees.)

Particulars.	VALUE OF IMPORTED MATERIALS.			Value of indigenous materials.	TOTAL PURCHASES.	
	Purchased direct	Purchased through Agents in India.	Total imported materials.		1936-37.	1935-36.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
G. Stores Hardware, copper, tin and zinc ware, all leather, canvas and India rubber in bulk, metals, painters' stores, timber and fuel and fuel oil, etc.	13	1,02	1,15	3,43	4,58	4,76
H. Electrical and train and locomotive lighting plants and materials, etc., and Telegraph and Telephone equipment.	14	55	69	5	74	74
All other stores	6	84	90	1,37	2,27	2,44
TOTAL .	1,23	3,77	5,00	8,64	13,64	15,57

67. Value of stores purchased by State-managed and Company-managed Railways during 1931-32 to 1936-37, value of stores purchased by those Railways through the Indian Stores Department and value of stores purchases controlled by the Railway Board for those railways during that period.—A statement is given below showing the value of stores imported direct, imported stores purchased in India, and indigenous stores purchased by the State-managed and Company-managed Railways during the years 1931-32 to 1936-37, together with the value of stores purchased by those railways through the Indian Stores Department and also the value of stores purchases controlled by the Railway Board during the same period :—

(Figures in thousands.)

Railways.	TOTAL VALUE OF STORES PURCHASED.				Value of stores purchased through Indian Stores Department.	Percentage of Column 6 to Column 5.	Value of stores purchases controlled by the Railway Board.	Percentage of Column 8 to Column 5.
	Stores imported direct.	Imported stores purchased in India.	Stores of Indian manufacture or of indigenous origin.	Total.				
1	2	3	4	5	6	7	8	9
1931-32.								
State-managed .	1,03,23	2,91,56	5,47,71	9,42,50	1,18,08	12·53	4,51,48	47·90
Company-managed .	1,41,21	1,28,46	3,87,24	6,56,91	7,87	1·20	1,73,73	26·42
TOTAL .	2,44,44	4,20,02	9,34,95	15,99,41	1,25,95	7·87	6,25,21	39·10
1932-33.								
State-managed .	8,54	2,26,28	3,95,16	6,29,98	1,46,84	23·38	2,61,05	41·44
Company-managed .	79,00	1,07,12	2,87,83	4,73,95	4,70	0·99	95,87	20·23
TOTAL .	87,54	3,33,40	6,82,99	11,03,93	1,51,54	13·72	3,56,92	32·33
1933-34.								
State-managed .	6,81	2,50,63	4,94,51	7,51,95	1,70,93	22·73	3,22,17	42·84
Company-managed .	66,36	1,12,71	2,65,56	4,44,63	3,81	0·85	77,58	17·45
TOTAL .	73,17	3,63,34	7,60,07	11,96,58	1,74,74	14·60	3,99,75	33·40
1934-35.								
State-managed .	5,40	2,57,11	5,42,69	8,05,20	2,53,51	31·48	3,48,19	43·24
Company-managed .	1,10,90	1,45,65	3,51,58	6,08,13	6,15	1·01	1,40,18	23·05
TOTAL .	1,16,30	4,02,76	8,94,27	14,13,33	2,59,66	18·37	4,88,37	34·55
1935-36.								
State-managed .	6,37	3,36,88	6,14,15	9,57,40	2,78,11	29·05	4,05,78	42·38
Company-managed .	1,23,99	1,32,21	3,43,68	5,99,88	6,76	1·13	1,40,28	23·38
TOTAL .	1,30,36	4,69,09	9,57,83	15,57,28	2,84,87	18·29	5,46,06	35·06
1936-37.								
State-managed .	5,31	2,58,65	5,33,26	7,97,22	*3,29,44	41·32	3,17,91	39·88
Company-managed .	1,18,12	1,18,13	3,30,41	5,66,66	28,32	5·00	1,10,46	19·49
TOTAL .	1,23,43	3,76,78	8,63,67	13,63,88	3,57,76	26·23	4,28,37	30·69

* Purchases to the value of Rs. 97,198 for the Chief Mining Engineer, Railway Board, Rs. 5,043 for the Central Publicity Bureau (Indian State Railways) and Rs. 251 for the Railway Clearing Accounts Office made through the Indian Stores Department during 1936-37 are omitted from this figure.

It will be seen that the value of stores imported direct by the State-managed Railways has decreased from Rs. 103·23 lakhs in 1931-32 to 5·31 lakhs in 1936-37. As stated in the last year's Report this is the direct result of new stores purchase rules (commonly known as the rupee tender system) which became obligatory on those railways with effect from 1st January, 1931. The percentage of the value of indigenous stores to the total value of all stores purchased by these railways has increased from 58·11 per cent. in 1931-32 to 66·89 per cent. in 1936-37. The value of stores purchased by these railways through the Indian Stores Department has also been increasing steadily.

In the case of Company-managed Railways the value of stores imported direct decreased during the aforesaid period from Rs. 141·21 lakhs to Rs. 118·12 lakhs. The value of stores purchased by these railways through the Indian Stores Department has increased from Rs. 7·87 lakhs in 1931-32 to Rs. 28·32 lakhs in the year under review.

68. Purchase of Stores by railways through the Indian Stores Department.—The total value of stores purchased by all railways through the agency of the Indian Stores Department during the year under review amounted to Rs. 3,61,62,520 of which Rs. 25,31,340 represented the value of textiles and Rs. 3,36,31,180 the value of engineering hardware and miscellaneous stores. The list of items, the purchase of which by the State-managed Railways through the agency of the Indian Stores Department is obligatory, was reviewed and the following items of railway stores were added to the list :—

Plates, steel trough, small tools (such as milling cutters, reamers, twist drills, etc.) grinding wheels of approved brands as recommended by railways.
Plates, copper, all types other than flanged,
Body panel plates,
All steel castings,
Hinges of all kinds,
Screws coach,
Split pins and cotters,
Tool steel,
Tin plates,
Brass, gauze,
Copper, gauze,
Aluminium,
Platinum,
Lead wool,
Wire netting,
Almirahs, racks and shelving, steel,
Hospital equipment, *e.g.*, beds, ward furniture, sterilisers, X-Ray apparatus, etc.

The value of stores purchased by railways through the Indian Stores Department increased from Rs. 290·21 lakhs during the previous year to Rs. 361·63 lakhs during the year under review.

69. Cost of maintenance and supply of locomotive power and cost of maintenance and operation of Carriage and Wagon Stock.—The results obtained during the year under review and the ten previous years in regard to the cost of maintenance and supply of locomotive power under the three major heads of accounts (running repairs, workshops repairs and operating expenses) and also of the cost of maintenance and operation of carriage and wagon stock per 1,000 gross ton miles, for both broad and metre gauges of the Class I Railways in India, are reproduced in graphic form on the two following pages.

70. Air conditioned coaches.—The Railway Board have had under consideration the question of air-conditioning passenger coaches on long distance trains in India and have decided to initiate the experiment with five First class air-conditioned coaches on the Bombay-Calcutta mail service. The total additional cost of the air-conditioning equipment, insulation and special fittings for these five coaches is estimated at Rs. 2,00,000 and it is hoped to recover this by the imposition of a small surcharge on each ticket issued for the additional comfort provided. During the hottest weather maximum internal temperature of 85° is anticipated and during the coldest weather the circulating air will be suitably heated. Dust, cinders and other similar discomforts incidental to railway travel in India will be eliminated.

71. Refrigerator Vans.—The Railway Board visualise the possibilities of the development of refrigerated traffic in India if necessary transport facilities are provided. An experimental refrigerator van with mechanical equipment is being constructed on the Madras and Southern Mahratta Railway and other railways will provide similar vans if and when the traffic offering justifies such a course. In addition, the conversion of two North Western Railway insulated vans, for use as experimental refrigerator vans with eutectic tank and dry ice equipment, is being undertaken jointly by the Defence Department and the North Western Railway, with a view to such vehicles being ultimately used for the rail transport of perishable foodstuffs for the Army if found suitable for this purpose.

72. Central Standards Office for Railways.—During the year under review the Civil Engineering Branch of the Central Standards Office standardized and issued the following drawings to Railways :—

Permanent Way—

(1) 1 in $8\frac{1}{2}$ left turnout and 13′ 6″ over-riding switch Metre Gauge 60R F.F.

(2) 1 in 12 and 1 in $8\frac{1}{2}$ turnouts on pressed steel trough sleepers with two way keys and loose jaws 115-lb. F.F.

(3) Transverse steel sleepers with pressed up lugs and standard two way keys for Broad Gauge 115, 90R and 75R F.F.

(4) Two way keys for 60R and 50R F.F.

(5) Non-removable two way keys for 50R, 60R, 75R, 90R and 115 F.F.

(6) Stretcher bars for 1 in $8\frac{1}{2}$ Diamonds and slips for Broad Gauge and Metre Gauge.

(7) Insulated stretcher bars for Metre Gauge.

(8) Stronger fishplate for 90-lb. F.F.B.S.S. rail section.

Signalling and Interlocking—

(9) C.I. stop clamp, C.I. doll signal base, Roundel—Convex $3\frac{1}{2}$″, $8\frac{3}{8}$″ and $9\frac{5}{8}$″. Glass over—$4\frac{1}{2}$″ × $9\frac{1}{2}$″, alternative $\frac{1}{2}$″ wire adjusting screw, M.S. $\frac{1}{2}$″ turnbuckle, M.S. $\frac{1}{2}$″ screw eye R.H. L.H. alternative M.S. split link. M.S. screw jaw $1\frac{1}{4}$″, M.S. studs.

In addition to the above the following drawings were prepared by the Central Standards Office and issued as tentative standards :—

Permanent Way—

(1) C.I. C.S.T.9 type sleeper for Broad Gauge 75R F.F. and Metre Gauge 60R F.F.

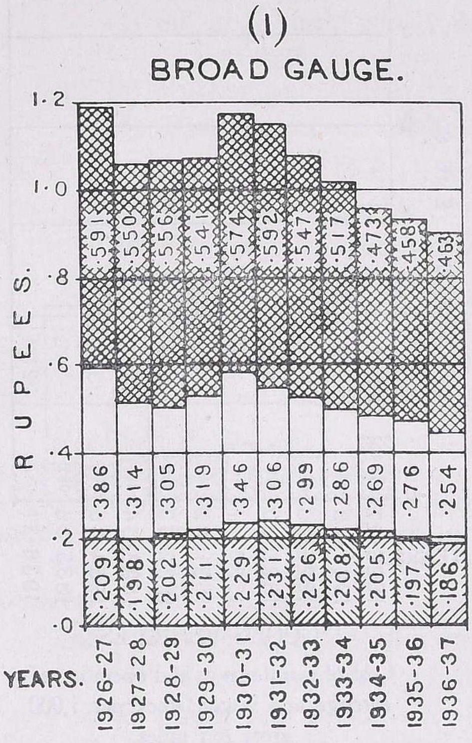
(2) Anti-creep C.I. bearing plate for Broad Gauge 90R F.F.

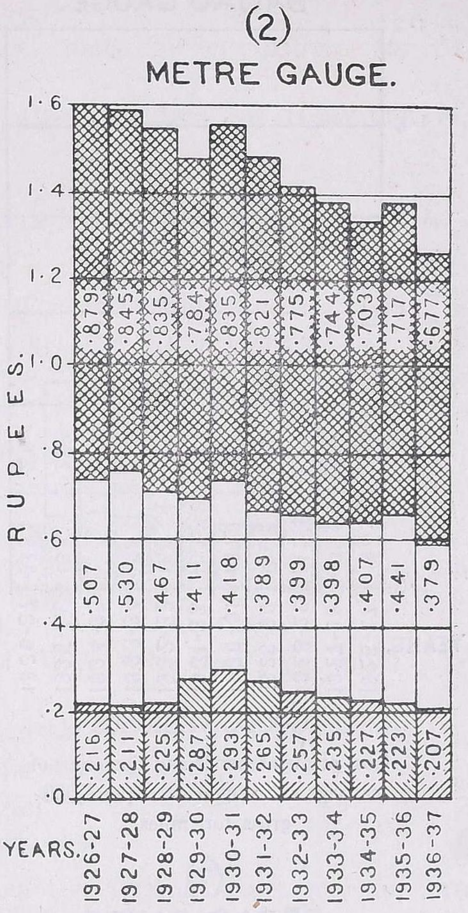
(3) Switch anchors for Broad Gauge and Metre Gauge switches.

(4) Combination fishplates Broad Gauge 90R, 90B.S. 75R, 75B.S. and 60R, 60B.S.

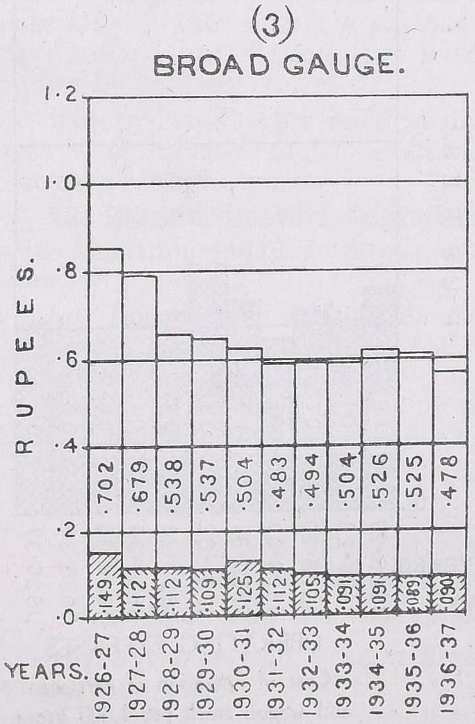
Running repairs shown thus
Workshop repairs shown thus
Operating expenses shown thus

COST OF MAINTENANCE AND SUPPLY OF LOCOMOTIVE POWER PER 1,000 GROSS TON MILES.

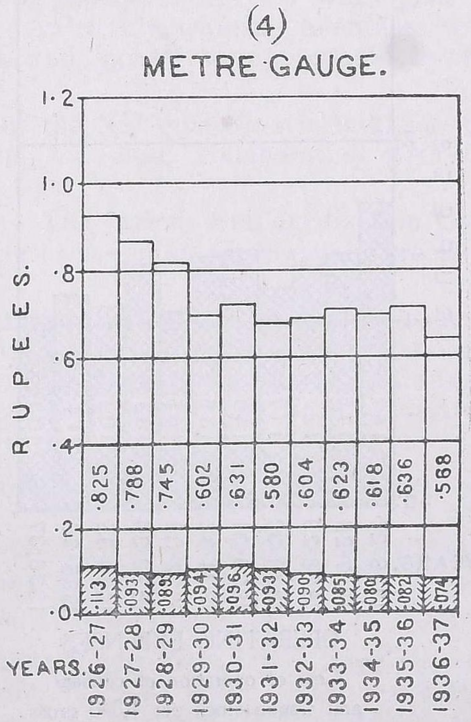




COST OF MAINTENANCE AND OPERATION OF CARRIAGE AND WAGON STOCK PER 1,000 GROSS TON MILES.



COACHING VEHICLES.



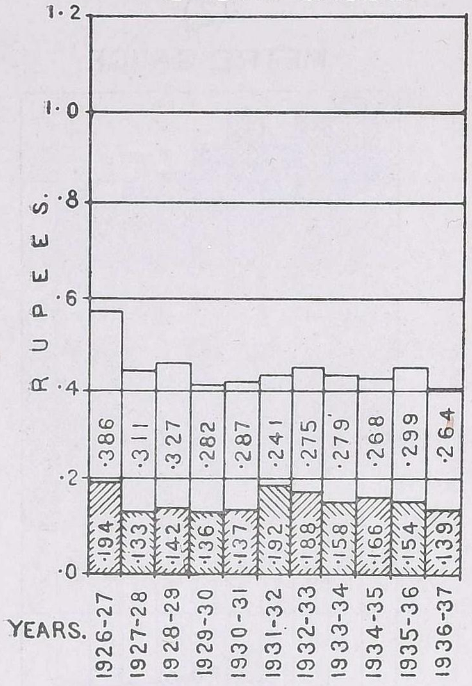
COACHING VEHICLES.

M

Running repairs shown thus
Workshop repairs shown thus
Operating expenses shown thus

(5)

BROAD GAUGE.

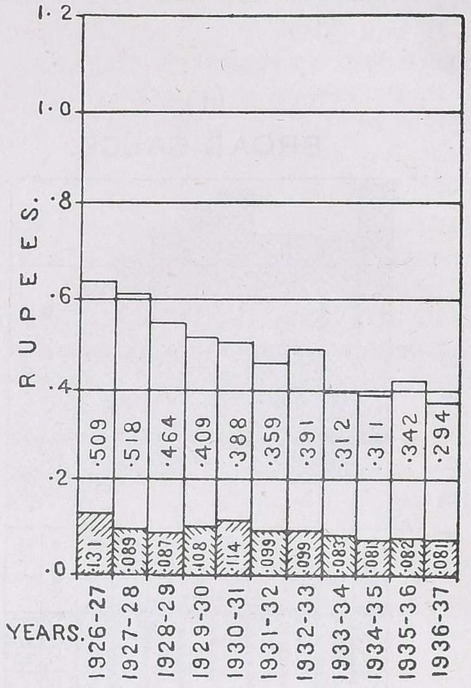


GOODS VEHICLES

Cost of maintenance and operation of carriage and wagon stock per 1,000 gross ton miles.

(6)

METRE GAUGE.

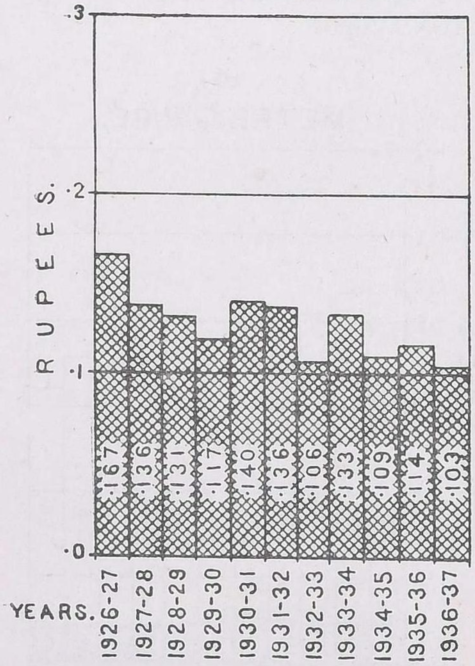


GOODS VEHICLES

Cost of maintenance and operation of carriage and wagon stock per 1,000 gross ton miles.

(7)

BROAD GAUGE.

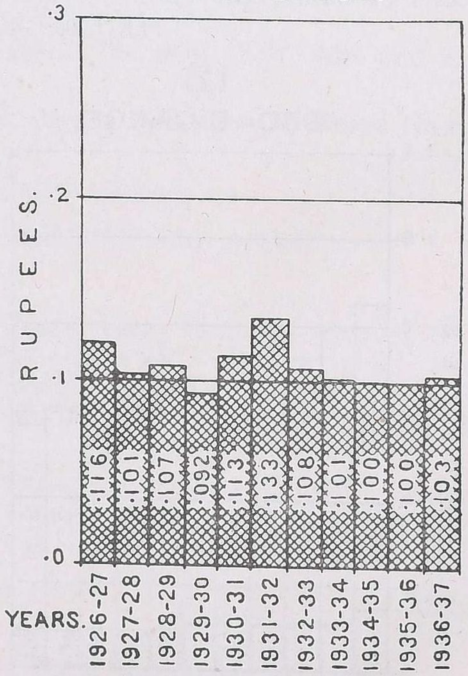


OPERATING EXPENSES

Cost of operation of carriage and wagon stock per 1,000 gross ton miles.

(8)

METRE GAUGE.



OPERATING EXPENSES

Cost of operation of carriage and wagon stock per 1,000 gross ton miles.

Bridges—

(1) 100′ span high tensile steel plate girder bridges for M.L. loadings.

(2) 80′ span high tensile steel plate girder bridges for M.L. loadings.

(3) 60′ span high tensile steel plate girder bridges for M.L. loadings.

(4) 80′ span mild steel plate girder bridges for H.M. and M.L. loadings.

(5) Rubber pad (under trial).

(6) T steel sleepers for 100′ span high tensile steel girders.

Roofs and similar steel structures—

(1) Roof over 25′ wide platform—Metre Gauge.

(2) Foot over bridges Metre Gauge over 2 and 3 tracks.

(3) Gangway with trolley refuges for 100′ clear span high tensile steel plate girder—Broad Gauge.

Arches and other masonry structures—

(1) 15′ span Broad Gauge M.L. standard.

Mechanical Drawing Office.—Master sets of part drawings relating to wagons, underframes, automatic vacuum brake, coaching body and track tool drawings were kept up-to-date. Approximately 330 new wagon and underframe part drawings were issued.

Diagrammatic designs of WL, WM, WV, WU, WW, YJ and YU type locomotives were prepared.

The following carriage and wagon drawings were completed :—

56′-6″ Metre Gauge underframe (continuous type).

Steel Motor and Parcel Van (bogie).

Steel Motor and Parcel Van (4-wheeled).

Designs for a German type of locomotive friction draft gear for Broad and Metre Gauges were despatched to railways for trial purposes.

A design of Broad Gauge Carriage and Wagon non-convertible drawgear was standarized. Compared with the original design, this draw gear is materially lighter and less expensive. Axlebox machining tolerances were standardized and designs for fixtures and gauges were prepared by the Indian Stores Department.

The principal working drawings of the XP type experimental locomotives were brought under examination in close collaboration with the Consulting Engineers.

73. Standardization Committees.—The various Standardization Committees continued to perform valuable work concerning which details are given below :—

(*a*) Locomotive Standards Committee.—The Locomotive Standards Committee met in December, 1936. As a result of experience in service a number of modifications to existing designs were recommended and results of a number of successful trials proposed for incorporation in future designs. Some of the principal subjects dealt with included the introduction of :—

(i) Nitralloy steel as a permissible alternative for gudgeon and knuckle pin bushes.

(ii) Trials with nickel chrome alloy cast iron for piston valve liners, eccentric sheaves, straps and crosshead slippers.

(iii) Data regarding the incidence of heated bearings was reviewed.

(*b*) Carriage and Wagon Standards Committee.—The Carriage and Wagon Standards Committee met during March 1937. The Committee recommended a number of modifications in the design of mechanical and

M 2

electrical components as a result of experience in service. Among other subjects the Committee dealt with :—

(i) The fixation of tolerances and dimensions for gauges recommended by the Production Engineers.

(ii) Scrutiny of three new types of vehicles designed by the Central Standards Office.

(iii) Future policy regarding standardization of carriage body parts.

(*c*) **Bridge Standards Committee.**—The Committee met in February-March 1937, and made recommendations on the following :—

(i) To try out a sleeper pad composition which can be cast *in situ* and the object of which is to remove inequalities in level on the tops of girders and enable one standard thickness of timber sleeper to be used.

(ii) Trial of steel sleepers on bridges in lieu of timber sleepers.

(iii) Dynamic allowance for crane gantries.

(iv) Instructions drawn up as to the method of prestressing lattice girder bridges.

(v) Spacing of main girders in metre gauge deck bridges, considered in relation to the strength of the cross sleepers and the requisite lateral stability of the spans.

(vi) Provision of keys in masonry arches.

(vii) Permissible stresses in wrought iron and early steel bridges to be based on test specimens taken from the bridge.

(viii) Permissible stresses in concrete specified in the Standard Code of Practice for Reinforced Concrete Construction.

(ix) The best shape of girder and type of web system to adopt in large span lattice girder bridges.

(x) Design of reinforced concrete slab top bridges.

(xi) Design and jointing of reinforced pipe culverts.

(xii) Examination of standard charts for checking designs of reinforced concrete beams and slabs.

(*d*) **Track Standards Committee.**—The Committee met in January 1937 and made recommendations on the following :—

(i) Increase of the standard length of rails to 60′.

(ii) Alternative use of pressed sleepers in lieu of rolled sleepers for standard steel sleeper turnouts.

(iii) Anti-creep cast iron bearing plates for use on timber sleepers.

(iv) Design of rail expansion joint for use at the piers of large span girder bridges when the rails are welded throughout the length of a span.

(v) Design of combination fishplates.

(vi) Design of broad gauge hand trollies.

(vii) Designs for stretcher bars for diamonds and slips, both broad gauge and metre gauge.

(viii) Withdrawal of non-overriding types of switches as standards.

(ix) Preparation of standard plans for layouts using 1 in 8½ turnouts for gathering lines in goods yards.

(x) Specification for manufacture of rails to permit of a tolerance of straightness in the form of reverse camber in the finished rails, the object of which is to prevent rails being hogged when first laid in the track.

(xi) Designs of switch anchors for broad and metre gauge turnouts.

(xii) Design of spring crossings for broad gauge requirements.

Interior of Electric Sub-station at Bassein Road showing Mercury Arc Rectifiers.

(*e*) **Signalling and Interlocking Standards Committee.**—The Committee met in November-December 1936 and made recommendations concerning :—

(i) Adoption of various Indian Stores Department and British Standards Specifications for use on Railways.

(ii) Disposal of certain criticisms on the Manual of Instructions for the Maintenance of Block Signalling Apparatus.

(iii) Standardization of all interlocking gear required for points and crossings to enable the location of leading stretcher bars in broad and metre gauge turnouts to be indicated on the standard turnout plans.

(iv) Standardization of point roller guides and lock bar clips.

(v) Increased tolerances in the manufacture of cranks.

(vi) Various suggestions for economies in signalling installations.

(vii) Tolerances in the sizes of pins and holes in the manufacture of signal fittings.

(viii) Standardization of grease lubrication for signalling and interlocking equipment.

(ix) Employment of machine engraved plates for signal and point levers.

(x) Extension of periods of overhaul of signalling installations.

(xi) Production of standard plans for crossing station layouts, equipped under the three standards of signalling and interlocking.

(xii) Standardization of items not yet standardized.

(*f*) **Standards and Specifications Committee.**—The Standards and Specifications Committee met in January 1937. Among the principal subjects considered were :—

(i) A future programme of specification work covering, in order of priority, the specifications to be prepared in the next few years.

(ii) Methods of payment to be adopted for the purchase of the various finished, semi-finished and raw ferrous products.

Four I.R.S. Specifications were issued and 20 I.R.S. Specifications were revised. In addition, 37 Indian Stores Department Specifications and 18 British Standards Specifications were adopted for use on Railways.

Particular specifications for tendering purposes relating to new broad gauge locomotives to be ordered during 1937-38 were prepared. In the design of these engines the variation in types and sizes of studs, pins, rivets, nuts and washers has been reduced to a minimum. Arrangements were made with the builders for drawings of renewable parts to be produced as part, sub-assembly and assembly drawings. An officer was placed on special duty to ensure the closest possible co-ordination of requirements of the Consulting Engineers, Builders and Central Standards Office.

(*g*) **Electrical Standards Committee.**—The Electrical Standards Committee met in August 1936. Among the principal subjects considered were :—

(i) A number of draft specifications for electrical equipment.

(ii) The wiring of coaching stock.

(iii) The classification of electrical fittings with reference to the preparation of part drawings.

(iv) A number of points connected with electrical generating equipment on trains.

74. Research and Development.—The necessity for research and development was increasingly realised. The more important items under consideration during the year were :—

A. *Mechanical Branch*—

(i) *Paints.*—Test panels were prepared in close collaboration with the Industrial Research Bureau and Indian Stores Department (Government Test House). With the object of determining the effect of climate these panels were exposed at the following localities :—

Calcutta, Delhi, Lahore and Bombay.

(ii) *Dynamometer Car.*—The dynamometer car continued to be fully employed. Periodical meetings were arranged between the Central Standards Office and the Dynamometer Car Officer with the object of co-ordinating the requirements and attaining the maximum results from the various tests initiated. Much valuable data was obtained relating to the rating of engines and the performance of the piston and poppet valves, feed water heaters, journal bearings, etc.

(iii) *High tensile carriage and wagon underframes.*—The possibilities of reducing tares of coaching stock were brought under investigation. A saving of approximately 2 tons was effected by employing high tensile steel in an experimental carriage underframe. Corresponding reductions in weight were effected by employing high tensile steel in an experimental "CR" type wagon.

(iv) *Air-conditioning of carriages.*—Arrangements were made to place 5 air-conditioned upper class carriages in service during 1937-38.

(v) *Analyses of wagon defects.*—Arrangements were made to apply the Hollerith system to analyses of wagon defects at selected stations, on the East Indian, Great Indian Peninsula and North Western Railways. The results will become available during 1937-38.

(vi) *Trials.*—Special forms were prepared by the Central Standards Office in order to systematise methods of conducting trials and experiments and ensuring that the data required is submitted on a comparable basis. The fact that no less than approximately 100 trials and experiments were initiated as a result of the Locomotive, Carriage and Wagon and Electrical Standards Committees' recommendations indicates that no fears need be entertained that progress in standardization necessarily implies lack of progress in innovation.

B. *Civil Engineering Branch*—

(i) *Stresses in track.*—During the year, work was continued on the very important and far-reaching research investigations commenced in November 1935. For this work, two officers were placed on special duty and special electro-magnetic recording apparatus was obtained from America. The object is to determine for Indian conditions the correct relation between axleload, weight of rail, nature of track structure and permissible speed of trains.

In the early stages great difficulty was encountered with the recording apparatus and much of it had to be reconstructed. Nevertheless, a large amount of testing was carried out on the North Western, the East Indian, the Eastern Bengal and the Bengal Nagpur Railways and the Investigating Officers produced an Interim Report in December 1936.

Valuable information was obtained indicating the practicability, under certain conditions, of conserving the existing rails for higher axle-loads and speeds than were formerly permitted.

(ii) *Heat treatment of crossings.*—Experiments were carried out at the Jamalpur Locomotive works of the East Indian Railway into the possibilities of hardening the wearing surfaces of crossings and six sets of crossings so prepared have been laid in the track on the East Indian Railway in order to obtain actual experience as to what reduction of wear can be obtained by the process on crossings in service.

(iii) *Reconditioning of fishplates.*—Reports were received from Railways of action taken on the recommendation of the Central Standards Office to recondition fishplates by hot pressing or other means to re-establish proper bearing contact with the rails at the joints.

(iv) *Special Joint Sleepers.*—Trials were conducted by various Railways on the Duplex type of joint sleeper combined with the rail-free principle the object of which is to improve the support afforded to rail joints. Very promising results are being obtained.

(v) *Special pocket type cast iron sleepers.*—The C.S.T.9 type of sleeper designed by the Central Standards Office to improve the lateral stability of track is being extensively tried and promises well.

(vi) *Improvements in track on bridges.*—Trials were initiated in the use of rubber pads between rails and sleepers on girder bridges. Designs were produced and have been accepted by the East Indian Railway for trial using steel sleepers in lieu of timber sleepers on girder bridges.

(vii) *Welded roof purlins.*—Experiments were carried out on a modified and cheaper design of welded purlin for station platform roofs resulting in considerable economy in the type of design adopted.

(viii) *Strengthening bridges by means of welding.*—Experimental work is being commenced to determine the possibilities of welding on to structural members which are already under stress.

(ix) *Reduction of stresses in rails due to reduction in the excess balance of locomotives.*—Action taken by the Mechanical Branch to reduce the percentage of reciprocating parts balanced in locomotives has resulted in an appreciable reduction of hammerblow on rails and joints.

CHAPTER VI.

STAFF.

75. Number of staff.—The total number of employees (permanent and temporary) on all Indian Railways and in the office of the Railway Board and other offices subordinate thereto (excluding staff employed on construction) at the end of the year 1936-37 was 710,880 as compared with 712,778* at the end of 1935-36. The total route mileage at the end of the year was 43,128. The following table shows the number of employees by communities on the 31st March 1936 and 1937. A similar statement showing details by railways is given as Appendix C of Volume II of the Report by the Railway Board on Indian Railways for 1936-37.

Date.	Europeans.	Indians.							Grand Total.
		Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Other communities.	Total.	
31st March, 1936 .	3,212*	505,559*	155,440*	13,424*	8,740	16,826*	9,577*	709,566*	712,778*
31st March, 1937 .	**3,121**	**504,983**	**154,535**	**13,416**	**8,734**	**17,253**	**8,838**	**707,759**	**710,880**

* Represents revised figures due to minor corrections made in the figures published last year.
[These figures exclude the staff on loan from the Indian Audit and Accounts Service (Deptt.).]

76. Cost of staff.—The following statement shows the number and cost of all staff, superior and subordinate (including labourers), permanent and temporary, open line and construction, employed on Class I Railways during the years 1935-36 and 1936-37. Contractors' labour is not included.

Railway Systems.	Year.	Number of staff on 31st March. Open line. Gazetted Officers.	Open line. Non-gazetted employees.	Open line. Total.	Construction. Gazetted Officers.	Construction. Non-gazetted employees.	Construction. Total.	Gazetted Officers on loan from the Indian Audit and Accounts Service (Deptt.).	Cost of staff. Gazetted Officers.	Non-gazetted employees.	Total.	Total including staff on loan from the Indian Audit and Accounts Service (Deptt.).
1	2	3	4	5	6	7	8	9	10	11	12	13
									Rs.	Rs.	Rs.	Rs.
Assam Bengal .	1936	66*	16,261	16,327	4	342	346	..	10,88,252	66,56,434	77,44,686	77,44,686
	1937	**68**	**17,027**	**17,095**	***Nil***	***Nil***	***Nil***	..	**11,48,620**	**67,67,929**	**79,16,549**	**79,16,549**
Bengal and North-Western.	1936	74*	27,260	27,334	*Nil*	*Nil*	*Nil*	..	11,83,966	71,76,951	83,60,917	83,60,917
	1937	**73**	**27,150**	**27,223**	***Nil***	***Nil***	***Nil***	..	**11,90,627**	**73,40,881**	**85,31,508**	**85,31,508**
Bengal Nagpur .	1936	188*	65,368	65,556*	*Nil*	5	5	..	32,58,963	2,98,31,885	3,30,90,848	3,30,90,848
	1937	**190**	**66,253**	**66,443**	***Nil***	***Nil***	***Nil***	..	**33,59,189**	**3,17,16,622**	**3,50,75,811**	**3,50,75,811**
Bombay, Baroda and Central India.	1936	171*	64,439	64,610	2	304	306	..	30,65,543	3,89,85,792	4,20,51,335	4,20,51,335
	1937	**170**	**63,176**	**63,346**	***Nil***	**297**	**297**	..	**30,70,064**	**3,86,06,398**	**4,16,76,462**	**4,16,76,462**

NOTE 1.—* Represents revised figures for 1935-36 due to changes made by the railway administrations in the figures published last year.

NOTE 2.—The figures of cost include the salaries and wages of staff, bonus contributions to the provident fund, gratuities, overtime allowances and all other allowances which are of the nature of extra pay and which are not granted to meet some definite expense incurred in the performance of duty, such as travelling allowance.

Railway Systems.	Year.	NUMBER OF STAFF ON 31ST MARCH.							COST OF STAFF.			
		OPEN LINE.			CONSTRUCTION.			Gazetted Officers on loan from the Indian Audit and Accounts Service (Deptt.).				
		Gazetted Officers.	Non-gazetted employees.	TOTAL.	Gazetted Officers.	Non-gazetted employees.	TOTAL.		Gazetted Officers.	Non-gazetted employees.	TOTAL.	Total including staff on loan from the Indian Audit and Accounts Service (Deptt.).
1	2	3	4	5	6	7	8	9	10	11	12	13
									Rs.	Rs.	Rs.	Rs.
Burma	1936	97	23,651	23,748	*Nil*	*Nil*	*Nil*	2	15,46,357	1,20,93,408	1,36,39,765	1,36,69,162
	1937	**96**	**23,142**	**23,238**	***Nil***	***Nil***	***Nil***	**1**	**16,18,421**	**1,17,33,190**	**1,33,51,611**	**1,33,93,220**
Eastern Bengal	1936	122	49,455	49,577	*Nil*	54	54	2	21,57,177	2,35,41,897*	2,56,99,074*	2,57,72,167*
	1937	**119**	**52,230**	**52,349**	***Nil***	***Nil***	***Nil***	**2**	**22,84,830**	**2,35,48,750**	**2,58,33,580**	**2,58,89,717**
East Indian	1936	293	124,857	125,150	*Nil*	2	2	6	53,59,955	6,06,87,810	6,60,47,765	6,61,50,765
	1937	**300**	**125,106**	**125,406**	***Nil***	**1**	**1**	**6**	**51,43,915**	**6,09,28,915**	**6,60,72,830**	**6,61,98,705**
Great Indian Peninsula.	1936	212	83,328	83,540	*Nil*	*Nil*	*Nil*	1	42,86,427	4,38,77,189	4,81,63,616	4,81,85,383
	1937	**215**	**81,672**	**81,887**	***Nil***	***Nil***	***Nil***	**1**	**40,92,572**	**4,42,36,491**	**4,83,29,063**	**4,83,33,753**
Jodhpur	1936	24	7,379	7,403	1	395	396	..	4,29,813	27,17,371	31,47,184	31,47,184
	1937	**25**	**7,620**	**7,645**	..	..	..	..	**4,20,617**	**27,25,182**	**31,45,799**	**31,45,799**
Madras and Southern Mahratta.	1936	139	49,560	49,699	*Nil*	66	66	..	23,86,086	2,35,83,706	2,59,69,792	2,59,69,792
	1937	**137**	**49,745**	**49,882**	***Nil***	**56**	**56**	..	**23,74,312**	**2,33,91,487**	**2,57,65,799**	**2,57,65,799**
Nizam's State	1936	59	16,077	16,136	1	19	20	..	9,85,591	64,57,631	74,43,222	74,43,222
	1937	**67**	**15,675**	**15,742**	**1**	**210**	**211**	..	**9,55,208**	**60,69,700**	**70,24,908**	**70 24,908**
North Western	1936	267	104,946	105,213	*Nil*	2	2	4	43,82,936	5,72,78,216*	6,16,61,152*	6,17,10,364*
	1937	**268**	**101,283**	**101,551**	***Nil***	**1**	**1**	**4**	**45,31,578**	**5,69,66,775**	**6,14,98,353**	**6,15,49,620**
Rohilkund and Kumaon.	1936	16	5,572	5,588	*Nil*	*Nil*	*Nil*	..	2,05,448	15,63,884	17,69,332	17,69,332
	1937	**17**	**5,534**	**5,551**	***Nil***	***Nil***	***Nil***	..	**2,20,422**	**15,15,494**	**17,35,916**	**17,35,916**
South Indian	1936	128	36,783	36,911	*Nil*	31	31	..	19,57,630	1,65,75,268	1,85,32,898†	1,85,32,898†
	1937	**124**	**36,606**	**36,730**	***Nil***	**23**	**23**	..	**18,82,645**	**1,64,45,160**	**1,83,27,805**	**1,83,27,805**
TOTAL	1936	1,856	674,936	676,792	8	1,220	1,228	15	3,22,94,144	33,10,27,442*	36,33,21,586*	36,35,98,005*
	1937	**1,869**	**672,219**	**674,088**	**1**	**588**	**589**	**14**	**3,22,93,020**	**33,19,92,974**	**36,42 85,994**	**36,45,65,572**

NOTE 1.—* Represents revised figures for 1935-36 due to changes made by the railway administrations in the figures published last year.

NOTE 2.—The figures of cost include the salaries and wages of staff, bonus contributions to the provident fund, gratuities, overtime allowances and all other allowances which are of the nature of extra pay and which are not granted to meet some definite expense incurred in the performance of duty, such as travelling allowance.

NOTE 3.—† Exclusive of Emergency cut of —3,588 for 1935-36.

The above statement shows that there was a decrease of 2,704 in the total number of staff employed on open line on 31st March 1937 as compared with 31st March 1936 while the staff on loan from the Indian Audit and Accounts Service and the Construction Staff were less by 1 and 639 respectively. The increase in the total cost of staff including staff on loan from the Indian Audit and Accounts Service during 1936-37 as compared with the preceding year was Rs. 9,67,567.

On the Bombay, Baroda and Central India, Burma, North Western, Rohilkund and Kumaon and South Indian Railways there was a decrease

in the number and cost of staff as compared with the previous year. On the Bengal and North-Western and Great Indian Peninsula Railways there was a decrease in the number of staff but an increase in the cost. The increase in the cost of staff on the Bengal and North-Western Railway was due to reallocation of bonus paid to the staff in connection with the Bihar earthquake and payment of more retiring gratuities to senior officers. On the Great Indian Peninsula Railway the increase in cost of staff which was very small calls for no remarks. The increase in the number and cost of staff on the Assam Bengal Railway was mainly due to engagement of extra staff for Meghna Bridge, which is being treated as an open line capital work, in locomotive and carriage workshops and on relaying works.

The increase in the number and cost of staff on the Bengal Nagpur Railway was due to appointment of extra staff for relaying work and to the engagement of temporary extra staff during the strike and also to payment of diet allowance to permanent and temporary staff and bonus to non-strikers.

The increase in the number and cost of staff on the Eastern Bengal Railway was mainly due to the employment of additional temporary works staff, reopening of Parbatipur transhipment yard, payment of gratuity owing to retirement of large number of gazetted staff and entertainment of additional staff required in locomotive and carriage and wagon workshops.

The variation on the East Indian Railway which was very slight calls for no remarks.

On the Madras and Southern Mahratta Railway the cost of staff was less in spite of a slight increase in the number of staff.

77. Indianisation.—*Superior Services—State-managed Railways.*—26 appointments were made to the Superior Railway Services both by direct recruitment and promotion. Details are given below :—

Direct recruitment.

DEPARTMENT.	VACANCIES FILLED BY							
	EUROPEANS.	INDIANS.						
		Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Other communities.	TOTAL.
Agency	..	..	..	..	..	..	..	..
Engineering	1	2	..	..	..	..	..	2
Accounts	..	2	..	..	..	..	..	2
Transportation (Traffic) and Commercial.	2*	3	2	..	1	..	..	6
Transportation (Power) and Mechanical Engineering.	..	4	..	2	..	..	..	6
Stores	..	..	..	..	..	..	..	..
Others	..	..	..	..	1	1	..	2
TOTAL	3	11	2	2	2	1	..	18

Percentage { Europeans . . . 14·3
Indians . . . 85·7 }

* Includes one Watch and Ward officer borne on the cadre of the Transportation (Traffic) and Commercial Departments.

The percentage of Europeans was less than 25 per cent. as instead of two European officers to be recruited to the Transportation Traffic and Commercial Department from the United Kingdom only one was recruited; the other vacancy has been carried forward. Necessary adjustment will be made in the near future.

As regards Indian recruitment the percentages were—

61·1 Hindus.
11·1 Muslims.
11·1 Anglo-Indians and Domiciled Europeans.
11·1 Sikhs.
5·6 Indian Christians.

The shortage of Muslim recruitment was due to—

(i) the failure in medical examination of a Muslim candidate selected for appointment to the Transportation (Traffic) and Com-

mercial Department and no other suitably qualified candidate being available in his place. This shortage has, however, been made good in the recruitment subsequently made to that Department;

(ii) suitably qualified Muslim candidates not forthcoming for appointment in the Signal Engineering and State Railway Coal Departments, where two vacancies had been reserved for them. The deficiency in the Signal Engineering Department has since been made good by the appointment of an additional Muslim to the Indian Railway Service of Engineers subsequent to 31st March 1937; and

(iii) there being no Muslim candidate amongst the six special class apprentices who were originally recruited in 1930 and were appointed to the Mechanical Engineering and Transportation (Power) Department after the completion of six years training in 1936.

Further adjustments, if necessary, will be made in due course.

It will be observed from the information subsequently furnished in this paragraph that over-all direct recruitment of Muslims to Superior Railway Services on State-managed and Company-managed Railways concerned was 32·4 per cent.

Promotions.

DEPARTMENT.	VACANCIES FILLED BY							
	EUROPEANS.	INDIANS.						
		Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Other communities.	TOTAL.
Agency	..	..	..	..	..	..	..	..
Engineering	..	..	..	1	..	..	..	1
Accounts	..	..	..	..	..	1	..	1
Transportation (Traffic) and Commercial.	..	..	..	1	..	..	..	1
Transportation (Power) and Mechanical Engineering.	..	..	..	..	1	..	..	1
Stores	..	..	..	..	..	..	..	..
Others	..	1	..	..	..	..	..	1
TOTAL	..	1	..	2	1	1	..	5

Lower Gazetted Service.—32 promotions were made to the Lower Gazetted Service in the various departments. 15 went to Europeans and 17 to Indians of whom ten were Hindus, one Muslim, five Anglo-Indians and Domiciled Europeans, and one Sikh. Figures by departments were as follows :—

DEPARTMENT.	VACANCIES FILLED BY							
	EUROPEANS.	INDIANS.						
		Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Other communities.	TOTAL.
Agency	..	..	..	..	..	..	..	..
Engineering	3	6	1	..	1	..	..	8
Accounts	..	..	..	..	..	..	..	..
Transportation (Traffic) and Commercial.	5	3	..	2	..	..	..	5
Transportation (Power) and Mechanical Engineering.	5	1	..	2	..	..	..	3
Stores	..	..	..	1	..	..	..	1
Others	2	..	..	..	..	..	..	..
TOTAL	15	10	1	5	1	..	..	17

78. *Company-managed Railways.*—The following tables give a summary of the recruitment made to the Superior Services on Company-managed Railways during the year under review. Part I relates to direct recruitment and Part II to appointments made by promotion. A detailed statement by individual railways will be found in Appendix G of this report.

PART I.

Statement showing the number of appointments filled by direct recruitment in the Superior establishment on (Class I) Company-managed Railways, excluding His Exalted Highness the Nizam's State and Jodhpur Railways during 1936-37.

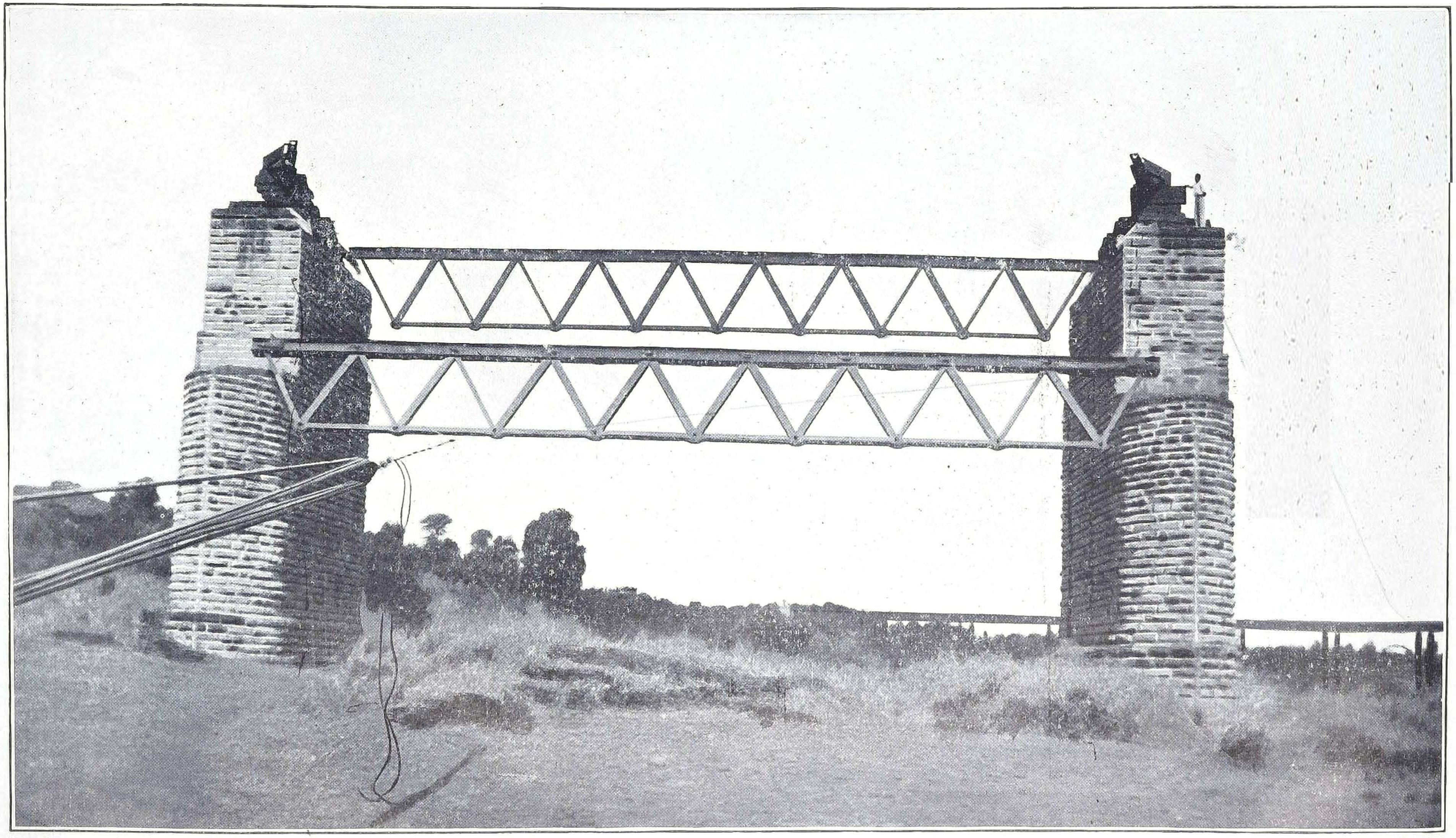
Department.	Vacancies filled by							
	Europeans.	Indians.						
		Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Other communities.	Total.
Agency	1	..	..	..	..	..	..	..
Accounts	1	..	2	..	..	..	..	2
Engineering	..	2	1	..	..	..	..	3
Transportation (Traffic) and Commercial.	4	3	4	..	1	..	..	8
Transportation (Power) and Mechanical Engineering.	..	..	..	..	..	..	..	..
Stores	1	1	1	..	..	..	..	2
Other Departments	..	..	1	..	..	..	..	1
Total	7	6	9	..	1	..	..	16

Percentage { Europeans . . . 30·4
Indians . . . . 69·6

PART II.

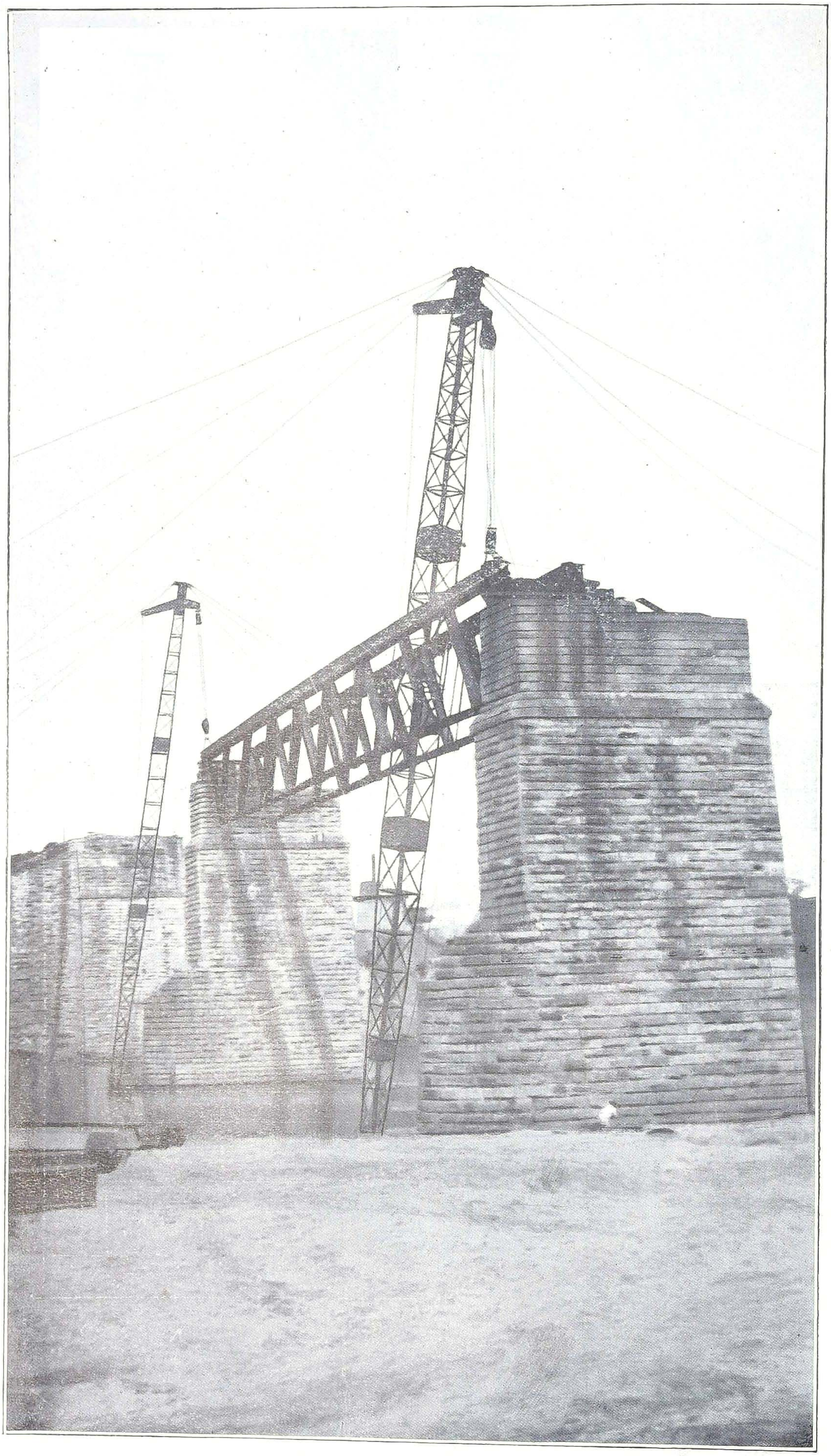
Statement showing the total number of vacancies in the Superior establishments on (Class I) Company-managed Railways excluding His Exalted Highness the Nizam's State and Jodhpur Railways filled by promotion from Lower to the Superior Services during 1936-37.

Department.	Vacancies filled by								
	Europeans.	Indians.							
		Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Parsis.	Other communities.	Total.
Agency	..	..	..	..	..	..	..	..	..
Accounts	1	..	..	2	..	..	..	..	2
Engineering	1	1	..	..	1	1	1	..	4
Transportation (Traffic) and Commercial.	2	..	1	..	..	1	1	..	3
Transportation (Power) and Mechanical Engineering.	4	..	..	..	..	..	..	..	..
Stores	..	..	..	..	..	..	..	..	..
Other Departments	..	..	..	..	..	..	1	..	1
Total	8	1	1	2	1	2	3	..	10



Dismantling an abandoned bridge on the Jubbulpore Section by the use of a small cantilever jim erected on the top of the pier.

Till this year it has not been worth while dismantling these bridges due to the low price to be obtained for scrap iron, but now that the price has risen appreciably, a considerable sum will be realized.



Dismantling an abandoned bridge on the Jubbulpore Section by the use of 100 feet derricks.

Till this year it has not been worth while dismantling these bridges due to the low price to be obtained for scrap iron, but now that the price has risen appreciably, a considerable sum will be realized.

It will be observed from Statement Part I that during the year under review the total number of appointments made by direct recruitment to the Superior Services on Company-managed Railways was 23 of which 7 went to Europeans and 16 to Indians of whom 6 were Hindus, 9 Muslims and 1 Sikh. The ratio of Indian to European recruitment was 69·6 to 30·4.

The European recruitment was in excess of 25 per cent. on the Bengal and North-Western, Rohilkund and Kumaon and South Indian Railways.

The Bengal and North-Western Railway expect to appoint six Indians shortly when it is hoped that the ratio of Indian recruitment will improve considerably. On the Rohilkund and Kumaon Railway the recruitment was very small; being only one. The recruitment on the South Indian Railway was however small and that Railway will, no doubt, obtain required percentages when recruitment is made on any large scale. The percentage of Indian recruitment in the principal departments was :—

	Direct recruitment.
Accounts	66·7
Engineering	100·0
Transportation (Traffic) and Commercial	66·7
Stores	66·7
Other Departments	100·0

Among Indian recruits the proportionate recruitment from each community was as shown below :—

Hindus	37·5
Muslims	56·2
Sikhs	6·3

For the over-all direct Indian recruitment to Superior Railway Services on the State and Company-managed Railways taken together, the percentages were as follows :—

Hindus	50·0
Muslims	32·4
Anglo-Indians and Domiciled Europeans	5·9
Sikhs	8·8
Indian Christians	2·9

79. Review of the progress made since 1925.—The statements on the following pages will throw further light on the progress made in Indianisation and in the recruitment of the various communities both on State-managed and Company-managed Railways since 1925, as reflected in the relative strength of Europeans and Indians belonging to the various communities. Part I relates to superior staff and Part II to subordinate staff on scales of pay rising to Rs. 250 and over.

PART I.

Statement of gazetted officers on State-managed Railways and Officers of corresponding rank on Company-managed (Class I) Railways (excluding H. E. H. the Nizam's State and Jodhpur Railways) on the 1st April 1925, 31st March 1936 and 31st March 1937.

Name of Railway.	1st April 1925. Europeans.	Indians. Hindus. Other than Depressed classes.	Depressed classes.*	Muslims.	*Anglo-Indians.	*Sikhs.	*Indian Christians.	*Parsis.	*Other communities.	Total.	Total number on the Railway (columns 2 plus 11).	31st March 1936. Europeans.	Indians. Hindus. Other than Depressed classes.	Depressed classes.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	‡Parsis.	‡Other communities.	Total.	Total number on the Railway (columns 13 plus 22).	31st March 1937. Europeans.	Indians. Hindus. Other than Depressed classes.	Depressed classes.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Parsis.	Other communities.	Total.	Total number on the Railway (columns 24 plus 33).
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
State-managed Railways.																																	
Burma	90	3	..	..	..	..	..	..	12	15	105	74	5	..	..	9	..	..	..	9	23	97	71	6	..	..	11	..	..	..	8	25	96
Eastern Bengal	79	31	..	3	..	..	..	..	12	46	125	55	47	..	7	10	1	2	..	..	67	122	51	47	..	7	12	1	1	..	..	68	119
East Indian	227	49	..	12	..	..	..	..	26	87	314	152	91	..	16	24	4	3	3	..	141	293	139	97	..	17	37	4	3	3	..	161	300
Great Indian Peninsula	175	18	..	5	..	..	..	..	23	46	221	141	34	..	12	8	..	9	7	1	71	212	139	39	..	11	11	..	8	6	1	76	215
North Western	192	60	..	13	..	..	..	..	28	101	293	128	80	..	27	13	14	5	..	..	139	267	123	83	..	28	14	15	5	..	..	145	268
Railway Board and Miscellaneous Offices.	59	8	..	3	..	..	..	..	14	25	84	41§	16	..	4	§7	1	2	..	..	§30	71	42	20	..	5	6	2	2	..	..	35	77
TOTAL	822	169	..	36	..	..	..	..	115	320	1,142	§591	273	..	66	§71	20	21	10	10	§471	1,062	565	292	..	68	91	22	19	9	9	510	1,075
Company-managed Railways.																																	
Assam Bengal	52	6	..	1	..	..	..	..	2	9	61	§38	§18	..	5	7	1	1	..	..	§32	70	35	18	..	7	6	1	1	..	..	33	68
Bengal Nagpur	170	27	..	5	..	..	..	..	19	51	221	§113	40	..	9	20	3	1	2	..	75	§188	106	42	..	12	22	4	1	2	..	83	189
Bengal and North-Western	55	3	..	1	..	..	..	..	..	4	59	§58	§9	..	4	§3	..	..	..	..	§16	§74	52	11	..	7	3	..	..	..	..	21	73
Bombay, Baroda and Central India	159	14	..	..	..	..	..	..	21	35	194	116	35	..	7	3	1	§3	8	..	§57	§173	110	34	..	9	4	1	4	8	..	60	170
Madras and Southern Mahratta	122	15	..	1	..	..	..	..	6	22	144	88	35	..	..	5	2	5	4	..	51	139	84	35	..	..	6	2	5	5	..	53	137
Rohilkund and Kumaon	12	1	..	..	..	..	..	..	..	1	13	10	2	..	3	..	1	..	..	..	6	16	11	2	..	2	1	1	..	..	..	6	17
South Indian	93	17	..	1	..	..	..	..	3	21	114	67	49	..	1	9	..	2	..	..	61	128	63	49	..	1	8	..	2	..	..	60	123
TOTAL	663	83	..	9	..	..	..	..	51	143	806	§490	§188	..	29	§47	8	§12	14	..	§298	§788	461	191	..	38	50	9	13	15	..	316	777
GRAND TOTAL	1,485	252	..	45	..	..	..	..	166	463	1,948	§1,081	§461	..	95	§118	28	§33	24	10	§769	§1,850	1,026	483	..	106	141	31	32	24	9	826	1,852

Statement showing the percentages of the relative strength of Europeans and Indians of various communities.

			1925.*	1936.	1937.
Europeans		State-managed Railways	71·98	§55·65	52·56
		Company-managed Railways.	82·26	§62·18	59·33
		TOTAL	76·23	§58·43	55·40
Indians	Hindus — Other than Depressed classes.	State-managed Railways	14·80	25·71	27·16
		Company-managed Railways.	10·30	§23·86	24·58
		TOTAL	12·94	§24·92	26·08
	Hindus — Depressed classes.	State-managed Railways	†	..	..
		Company-managed Railways.	†	..	..
		TOTAL	†	..	..
	Muslims	State-managed Railways	3·15	§6·21	6·32
		Company-managed Railways.	1·12	3·68	4·89
		TOTAL	2·31	5·14	5·72
	Anglo-Indians and domiciled Europeans.	State-managed Railways	*	§6·69	8·46
		Company-managed Railways.	*	§5·96	6·44
		TOTAL	*	§6·38	7·61
Indians—*concld.*	Sikhs	State-managed Railways	*	1·88	2·05
		Company-managed Railways.	*	1·02	1·16
		TOTAL	*	1·51	1·67
	Indian Christians	State-managed Railways	*	1·98	1·77
		Company-managed Railways.	*	§1·52	1·67
		TOTAL	*	§1·78	1·73
	Parsis‡	State-managed Railways	*	§0·94	0·84
		Company-managed Railways.	*	§1·78	1·93
		TOTAL	*	§1·30	1·30
	Other communities‡	State-managed Railways	*10·07	§0·94	0·84
		Company-managed Railways.	*6·32	..	..
		TOTAL	*8·52	§0·54	0·49
	TOTAL	State-managed Railways	28·02	§44·25	47·44
		Company-managed Railways.	17·74	§37·82	40·67
		TOTAL	23·77	§41·57	44·60

* Anglo Indians, Sikhs, Parsis and Indian Christians included in "Other communities" in 1925. † Depressed class Hindus were included in Hindus in 1925. § Revised figures.
‡ Figures under "Other classes" given in the Report for 1935-36 have been divided under the two heads, *viz.*, "Parsis" and "Other communities."

PART II.

Statement of subordinates on scales of pay rising to Rs. 250 per mensem and over on Class I Railways (excluding H. E. H. the Nizam's State and Jodhpur Railways), on the 1st April 1925, 31st March 1936 and 31st March 1937.

1st April 1925.

Name of Railway.	Europeans.	Indians. Hindus. Other than Depressed classes.	Indians. Hindus. ‡Depressed classes.	Indians. Muslims.	Indians. †Anglo-Indians.	Indians. †Sikhs.	Indians. †Indian Christians.	Indians. †Parsis.	Indians. †Other communities.	Indians. Total.	Total number on the Railway (columns 2 plus 11).
1	2	3	4	5	6	7	8	9	10	11	12
State-managed Railways.											
Burma	28	83	..	9	..	..	..	..	198	290	318
Eastern Bengal	143	106	..	5	..	..	..	..	163	274	417
East Indian	859	300	..	25	..	..	..	..	789	1,114	1,973
Great Indian Peninsula	286	125	..	29	..	..	..	..	803	957	1,243
North Western	401	328	..	123	..	..	..	..	378	829	1,230
Railway Board and miscellaneous offices.	*	*	..	*	*	*	*	*	*	*	*
TOTAL	1,717	942	..	191	..	..	..	..	2,331	3,464	5,181
Company-managed Railways.											
Assam Bengal	22	23	..	4	..	..	..	..	46	73	95
Bengal Nagpur	333	140	..	13	..	..	..	..	403	556	889
Bengal and North-Western	31	15	..	2	..	..	..	..	59	76	107
Bombay, Baroda and Central India	155	253	..	25	..	..	..	..	506	784	939
Madras and Southern Mahratta	85	31	..	1	..	..	..	..	173	205	290
Rohilkund and Kumaon	6	5	..	1	..	..	..	..	13	19	25
South Indian	63	73	..	2	..	..	..	..	158	233	296
TOTAL	695	540	..	48	..	..	..	..	1,358	1,946	2,641
GRAND TOTAL	2,412	1,482	..	239	..	..	..	..	3,689	5,410	7,822

31st March 1936.

Name of Railway.	Europeans.	Indians. Hindus. Other than Depressed classes.	Indians. Hindus. Depressed classes.	Indians. Muslims.	Indians. Anglo-Indians and domiciled Europeans.	Indians. Sikhs.	Indians. Indian Christians.	Indians. ‖Parsis.	Indians. ‖Other communities.	Indians. Total.	Total number on the Railway (columns 13 plus 22).
1	13	14	15	16	17	18	19	20	21	22	23
State-managed Railways.											
Burma	20	84	..	7	213	10	14	..	39	367	387
Eastern Bengal	54	168	..	9	163	5	3	..	..	348	402
East Indian	335	458	‡	57	990	17	12	3	3	1,540	1,875
Great Indian Peninsula	222	§226	2	36	600	17	97	39	31	1,048	1,270
North Western	244	350	‡	189	383	98	32	22	8	1,082	1,326
Railway Board and miscellaneous offices.	2	§153	..	32	20	13	§6	..	..	§224	§226
TOTAL	877	§1,439	2	330	2,369	160	§164	64	§81	§4,609	§5,486
Company-managed Railways.											
Assam Bengal	13	37	..	5	44	2	..	..	4	92	105
Bengal Nagpur	§103	223	..	21	§462	17	13	‡	6	§742	845
Bengal and North-Western	14	21	..	7	57	1	1	..	..	87	101
Bombay, Baroda and Central India	121	310	‡	35	314	3	41	‡	118	821	942
Madras and Southern Mahratta	60	64	..	2	181	2	3	4	..	256	316
Rohilkund and Kumaon	7	3	..	2	9	..	..	..	..	14	21
South Indian	31	87	..	6	142	..	§9	..	§..	244	275
TOTAL	§349	745	..	78	§1,209	25	§67	4	§128	§2,256	2,605
GRAND TOTAL	§1,226	§2,184	2	408	§3,578	185	§231	68	§209	§6,865	§8,091

31st March 1937.

Name of Railway.	Europeans.	Indians. Hindus. Other than Depressed classes.	Indians. Hindus. Depressed classes.	Indians. Muslims.	Indians. Anglo-Indians and domiciled Europeans.	Indians. Sikhs.	Indians. Indian Christians.	Indians. Parsis.	Indians. Other communities.	Indians. Total.	Total number on the Railway (columns 24 plus 33).
1	24	25	26	27	28	29	30	31	32	33	34
State-managed Railways.											
Burma	19	85	..	8	202	11	17	..	32	355	374
Eastern Bengal	56	180	..	9	156	6	3	..	2	356	412
East Indian	343	474	2	81	960	17	11	2	3	1,550	1,893
Great Indian Peninsula	212	234	1	36	594	12	89	36	30	1,032	1,244
North Western	222	376	..	216	365	106	22	22	15	1,122	1,344
Railway Board and miscellaneous offices.	2	152	..	37	21	14	5	..	..	229	231
TOTAL	854	1,501	3	387	2,298	166	147	60	82	4,644	5,498
Company-managed Railways.											
Assam Bengal	13	42	..	5	42	3	4	..	4	100	113
Bengal Nagpur	119	222	..	21	430	18	14	3	3	711	830
Bengal and North-Western	17	22	..	6	56	1	1	..	1	87	104
Bombay, Baroda and Central India	170	301	5	35	268	3	42	94	23	771	941
Madras and Southern Mahratta	57	69	..	5	174	2	6	4	..	260	317
Rohilkund and Kumaon	5	2	..	2	10	..	..	..	..	14	19
South Indian	26	84	..	8	141	..	10	..	..	243	269
TOTAL	407	742	5	82	1,121	27	77	101	31	2,186	2,593
GRAND TOTAL	1,261	2,243	8	469	3,419	193	224	161	113	6,830	8,091

Statement showing the percentages of the relative strength of Europeans and Indians of various communities.

Community			1925.	1936.	1937.
Europeans		State-managed Railways	33·14	15·99	15·53
		Company-managed Railways.	26·32	§13·40	15·70
		TOTAL	30·84	§15·15	15·59
Indians	Hindus — Other than Depressed classes.	State-managed Railways	18·18	§¶26·27	27·30
		Company-managed Railways.	20·44	¶28·60	28·62
		TOTAL	18·95	§¶27·02	27·72
	Hindus — Depressed classes.	State-managed Railways	‡	‡	0·06
		Company-managed Railways.	‡	‡	0·19
		TOTAL	‡	‡	0·10
	Muslims	State-managed Railways	3·69	§6·01	7·04
		Company-managed Railways.	1·82	2·99	3·16
		TOTAL	3·05	5·04	5·80
	Anglo-Indians and domiciled Europeans.	State-managed Railways	†	§43·18	41·80
		Company-managed Railways.	†	§46·41	43·23
		TOTAL	†	§44·22	42·25
Indians—*concld.*	Sikhs	State-managed Railways	†	2·92	3·02
		Company-managed Railways.	†	0·96	1·04
		TOTAL	†	2·29	2·38
	Indian Christians	State-managed Railways	†	§2·99	2·67
		Company-managed Railways.	†	§2·57	2·97
		TOTAL	†	§2·86	2·77
	Parsis‖	State-managed Railways	†	‡	1·09
		Company-managed Railways.	†	‡	3·90
		TOTAL	†	‡	1·99
	Other communities‖	State-managed Railways	†44·99	§2·64	1·49
		Company-managed Railways.	†51·42	§5 07	1·19
		TOTAL	†47·16	§3·42	1·40
	TOTAL	State-managed Railways	66·86	84·01	84·47
		Company-managed Railways.	73·68	§86·60	84·30
		TOTAL	69·16	§84·85	84·41

* Not available. † Anglo-Indians, Sikhs, Parsis and Indian Christians included in "Other communities" in 1925. ‡ Not available separately. § Revised figures. ¶ Includes "Depressed classes". ‖ Figures under "Other classes" given in the Report for 1935-36 have been divided under the two heads, *viz.*, "Parsis" and "Other communities".

It will be observed that the Indian element in the superior services has risen from 28·02 per cent. on State-managed and 17·74 per cent. on Company-managed Railways in 1925 to 47·44 per cent. on State-managed and 40·67 per cent. on Company-managed Railways in 1937. Among the Indians the percentage increase by communities in 1937 as compared with 1925 is shown below :—

—	State-managed.		Company-managed.	
	Percentages.		Percentages.	
	1925.	1937.	1925.	1937.
Hindus — other than depressed classes	14·80†	27·16	10·30†	24·58
Hindus — Depressed classes	†	..	†	..
Muslims	3·15	6·32	1·12	4·89
Anglo-Indians and domiciled Europeans.	*	8·46	*	6·44
Sikhs	*	2·05	*	1·16
Indian Christians	*	1·77	*	1·67
Parsis	*	0·84	*	1·93
Other Communities	10·07*	0·84	6·32*	..

* Anglo-Indians, Sikhs, Parsis and Indian Christians included under "other communities" in 1925.

† Depressed classes were included among Hindus in 1925.

Turning to the subordinate staff on scales of pay rising to Rs. 250 per mensem and over, the corresponding figures are as under :—

—	State-managed.		Company-managed.	
	Percentages.		Percentages.	
	1925.	1937.	1925.	1937.
Europeans	33·14	15·53	26·32	15·70
Indians—				
Hindus — other than depressed classes.	18·18†	27·30	20·44†	28·62
Hindus — Depressed classes	†	0·06	†	0·19
Muslims	3·69	7·04	1·82	3·16
Anglo-Indians and domiciled Europeans.	*	41·80	*	43·23
Sikhs	*	3·02	*	1·04
Indian Christians	*	2·67	*	2·97
Parsis	*	1·09	*	3·90
Other Communities	44·99*	1·49	51·42*	1·19
Total Indians	66·86	84·47	73·68	84·30

* Anglo-Indians, Sikhs, Parsis and Indian Christians included under "other communities" in 1925.

† Not available separately.

80. Representation of minority communities in railway services.—In the report for the year 1935-36, mention was made that to assist the Railway Board to watch the operation of the orders issued by the Government of India in regard to the representation of minority communities in railway services, an additional officer had been temporarily appointed at the Railway Board's headquarters with effect from the 17th October 1935. This officer continued to perform the duties assigned to his office during the year 1936-37.

The Railway Board have under consideration the question of authorising Agents of State-managed Railways to make direct recruitment to grades higher than the lowest in the subordinate services (intermediate grades) up to a limited percentage of vacancies per annum, subject to the observance of percentages fixed by the Government for the various minority communities.

The following figures show, by communities, the number and percentage of subordinate staff (excluding labourers and inferior servants) recruited on State and Company-managed Railways during the year 1936-37 :—

Statement showing the number of vacancies filled by direct recruitment in the Subordinate Services during the year 1936-37.

Name of Railway or office.	EUROPEANS.		HINDUS.				MINORITY COMMUNITIES RECOGNISED FOR THE PURPOSE OF COMMUNAL REPRESENTATION.										OTHER COMMUNITIES.		TOTAL.
			Hindus other than Depressed Classes.		Depressed Classes.		Muslims.		Domiciled Europeans and Anglo-Indians.		Sikhs.		Indian Christians.		Parsis.				
	No.	Per-centage of total (Col. 20.)	No.	Per-centage of total (Col. 20.)	No.	Per-centage of total (Col. 20.)	No.	Per-centage of total (Col. 20.)	No.	Per-centage of total (Col. 20.)	No.	Per-centage of total (Col. 20.)	No.	Per-centage of total (Col. 20.)	No.	Per-centage of total (Col. 20.)	No.	Per-centage of total (Col. 20.)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
(i) PERMANENT.																			
State-managed Railways.																			
Eastern Bengal . . .	..	..	157	43.5	10	2.8	157	43.5	24	6.6	..	..	9	2.5	..	..	4	1.1	361
East Indian . . .	..	..	180	64.3	..	..	64	22.9	29	10.4	3	1.1	2	0.7	1	0.3	1	0.3	280
Great Indian Peninsula .	2	1.0	124	59.0	2	1.0	38	18.1	29	13.8	1	0.5	10	4.7	3	1.4	1	0.5	210
North Western . . .	1	0.6	36	22.6	5	3.2	89	56.0	7	4.4	18	11.3	3	1.9	..	..	..	..	159
Company-managed Railways.																			
Assam Bengal . . .	1	0.73	48	35.04	..	..	81	59.13	6	4.36	..	..	..	..	..	..	1	0.73	137
Bengal and North-Western .	1	0.5	124	63.6	..	..	51	26.2	12	6.2	..	..	6	3.0	..	..	1	0.5	195
Bengal Nagpur . . .	..	..	151	64.5	1	0.4	40	17.1	34	14.5	2	0.8	6	2.6	..	..	..	..	234
Bombay, Baroda and Central India.	6	3.3	98	53.6	..	..	25	13.6	23	12.6	1	0.5	18	9.8	6	3.3	6	3.3	183
Madras and Southern Mahratta.	..	..	146	56.1	4	1.5	27	10.4	54	20.8	..	..	27	10.4	2	0.8	..	..	260
Rohilkund and Kumaon .	..	..	23	65.7	..	..	8	22.9	4	11.4	..	..	..	..	..	..	..	..	35
South Indian . . .	..	..	105	65.2	2	1.2	8	5.0	24	14.9	..	..	22	13.7	..	..	..	..	161
Office.																			
Central Standards . .	..	..	2	100.0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Supervisor, Railway Labour	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chief Mining Engineer .	..	..	67	68.37	..	..	25	25.51	3	3.06	1	1.0	2	2.0	..	..	..	..	98
Central Publicity . .	..	..	1	100·0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1

Government Inspectors of Railways.	..	..	..	..	..	..	..	..	..	..	1	100.0	..	..	..	..	..	..	1
Controller of Railway Accounts.	..	..	11	84.0	..	..	1	8.0	..	..	1	8.0	..	..	..	..	..	..	13
TOTAL	11	0.5	1,273	54.6	24	1.0	614	26.4	249	10.7	28	1.2	105	4.5	12	0.5	14	0.6	2,330
(ii) TEMPORARY.																			
State-managed Railways.																			
Eastern Bengal	..	..	447	47.0	2	0.2	446	47.0	49	5.1	2	0.2	5	0.5	..	..	..	..	951
East Indian	..	..	455	67.3	2	0.3	148	21.9	63	9.3	7	1	1	0.2	..	..	..	..	676
Great Indian Peninsula	..	..	122	76.2	4	2.5	15	9.4	8	5.0	..	..	10	6.3	1	0.6	..	..	160
North Western	1	0.2	182	29.4	..	..	336	54.3	17	2.7	69	11.1	14	2.3	..	..	..	..	619
Company-managed Railways.																			
Assam Bengal	..	..	15	38.4	..	..	20	51.3	3	7.7	1	2.6	..	..	..	..	..	..	39
Bengal and North Western	..	..	57	67.1	..	..	23	27.1	2	2.3	..	..	3	3.5	..	..	..	..	85
Bengal Nagpur	..	..	83	39.9	2	0.9	43	20.7	73	35.1	1	0.5	5	2.5	1	0.5	..	..	208
Bombay, Baroda and Central India.	..	..	116	67.5	..	..	38	22.1	4	2.3	3	1.7	9	5.2	2	1.2	..	..	172
Madras and Southern Mahratta	..	..	112	83.6	1	0.7	6	4.5	8	6.0	..	..	7	5.2	..	..	..	..	134
Rohilkund and Kumaon	..	..	19	73.1	..	..	5	19.2	..	..	..	..	2	7.7	..	..	..	..	26
South Indian	..	..	50	56.8	3	3.4	14	15.9	11	12.5	..	..	10	11.4	..	..	..	..	88
Office.																			
Central Standards	..	..	2	15.4	..	..	8	61.6	..	..	3	23.0	..	..	..	..	..	..	13
Supervisor, Railway Labour.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chief Mining Engineer	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Central Publicity	..	..	1	50·0	..	..	1	50·0	..	..	..	..	..	..	..	..	..	..	2
Government Inspectors of Railways.	..	..	..	..	..	..	1	100.0	..	..	..	..	..	..	..	..	..	..	1
Controller of Railway Accounts.	..	..	42	64.6	..	..	18	27.7	..	..	5	7.7	..	..	..	..	..	..	65
TOTAL	1	..	1,703	52.6	14	0.4	1,122	34.6	238	7.4	91	2.8	66	2.1	4	0.1	..	..	3,239
GRAND TOTAL (both permanent and temporary).	12	0.2	2,976	53.4	38	0.7	1,736	31.2	487	8.7	119	2.1	171	3.1	16	0.3	14	0.3	5,569

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The following figures show the overall percentage on both State and Company-managed railways during 1934-35, 1935-36 and 1936-37 :—

	1934-35.		1935-36.		1936-37.	
Europeans	*		0·19		**0·2**	
Hindus	65·20		57·09		**54·1**	
Muslims	17·45		28·50		**31·2**	
Anglo-Indians and Domiciled Europeans	12·13		8·33		**8·7**	
Sikhs	1·03	4·64	1·70	5·51	**2·1**	5·5
Indian Christians	2·95		3·49		**3·1**	
Parsis	0·66		0·32		**0·3**	
Other communities	0·58		0·38		**0·3**	

* In 1934-35 Europeans were not shown separately.

It will be observed from the figures given above that during the year under review direct recruitment to subordinate railway services of the different minority communities, for whom percentages have been fixed by the Government of India, was satisfactory.

81. Training of Staff.—*Area Schools.*—(a) *East Indian Railway School of Transportation, Chandausi.*—Traffic Inspectors courses were introduced, one Inspector from each division attending the school each month for instruction with the refresher course for assistant station masters. The total number of students attending the school increased slightly but the number of student days fell short of the figures for the previous year, on account of an increase in the number of short term courses. The cost per student day increased to Rs. 2-4 as compared with Rs. 1-14 during the previous year, due to the strengthening of the instructional staff at the school, an adjustment of outstanding electrical charges and an increase in messing charges.

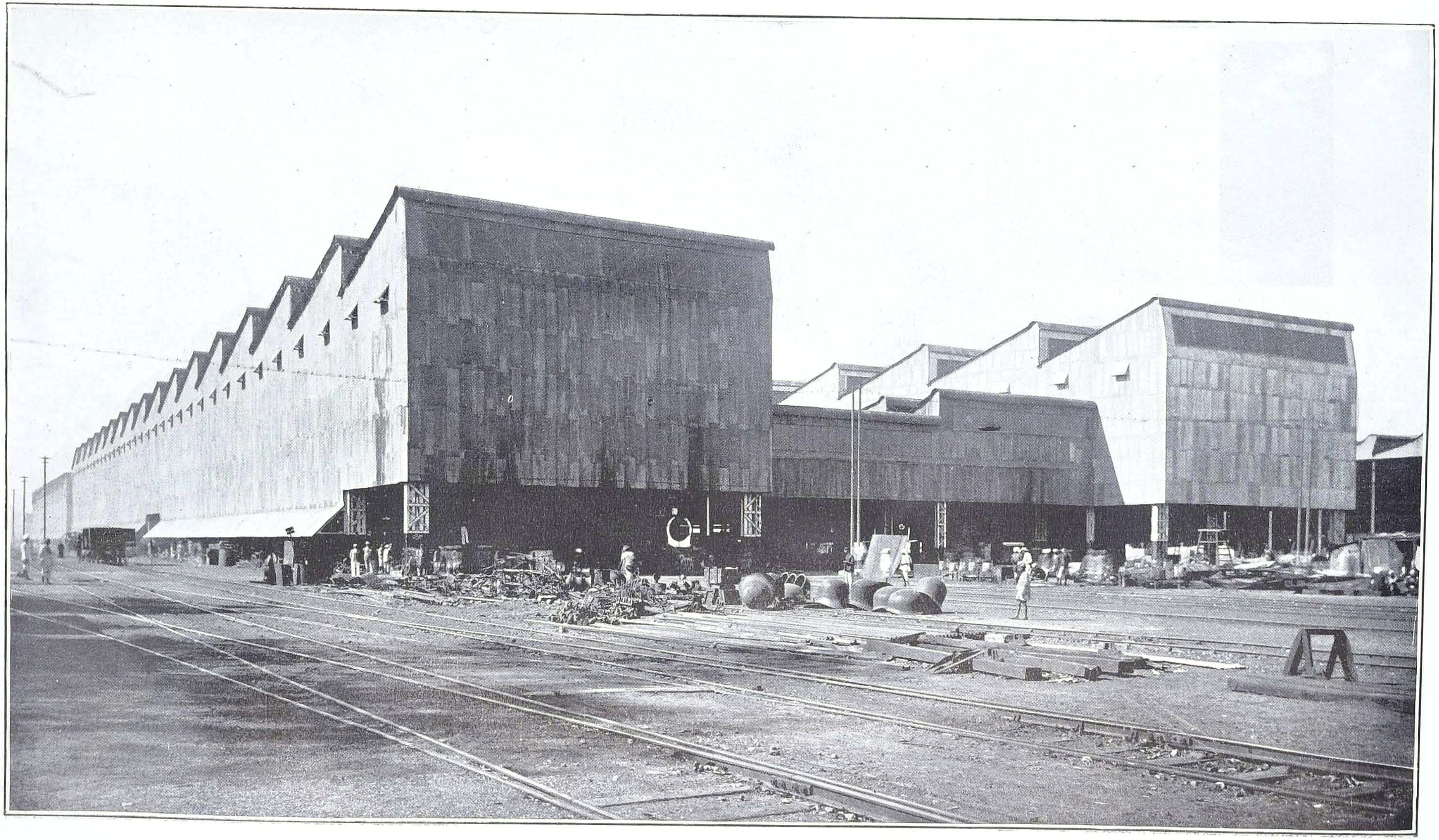
(b) *Walton Training School, North Western Railway, Lahore Cantonment.*—The School continued the training of staff for the North Western Railway. The total number who attended the school during the year was 1,391, including probationary officers, as compared with 1,234 in 1935-36.

Two new training courses were introduced during the year.

The training refresher and promotion courses provided in the school for candidates and staff, including the probationary officers, of practically all the branches are of great advantage to the administration in improving the general standard of efficiency.

82. Improvements in the service conditions of the staff.—*Hours of Employment Regulations.*—Chapter VI of the Indian Railways Act, 1890 (as amended), which contains the legal provisions regarding the Hours of Employment and Periods of Rest of Railway Servants, and which, together with the statutory rules made thereunder and the subsidiary instructions issued by the Railway Board constitute the Hours of Employment Regulations, have, so far, been given statutory effect on the North Western, East Indian, Eastern Bengal, Great Indian Peninsula, Bombay, Baroda and Central India and Madras and Southern Mahratta Railways. The extension of these regulations to other railways was considered towards the close of the year 1936, and it was decided that they should be applied to the Bengal and North-Western Railway from the 1st October 1937. The question of the further extension of these regulations to other railways will be considered in due course.

83. Welfare.—(i) *Assistance to railway employees from railway funds towards education of their children.*—The recommendations of the Central Advisory Council on proposals formulated by the Government of India relating to the policy of railways in the matter of grant of assistance to railway employees towards the education of their children, received consideration and it was decided to make no change for the present.



View of Erecting Shops at Jamalpur.

(ii) *Staff Benefit Fund.*—The Staff Benefit Funds established on principal railways continued to provide various forms of amenities and relief to subordinate and lower paid staff.

(iii) *Railway Sports.*—The ninth annual Inter-Railway Athletic Tournament was held in the Irwin Amphitheatre on the 19th and 20th of March 1937. The Bombay, Baroda and Central India, Bikaner, East Indian, Eastern Bengal, Great Indian Peninsula, Jodhpur, Madras and Southern Mahratta, North Western, South Indian Railways and the Railway Board entered their teams. The North Western Railway won the tournament for the ninth year in succession.

For the field games a hockey tournament was held from the 15th to 17th and on the 21st, 22nd and 23rd of March 1937. The Bombay, Baroda and Central India, East Indian, Great Indian Peninsula, North Western, Madras and Southern Mahratta, His Exalted Highness the Nizam's State Railways and Railway Board teams competed. The North Western Railway won the tournament; the Madras and Southern Mahratta Railway being the runners-up.

84. Report of the Royal Commission on Labour.—Certain recommendations of the Royal Commission on Labour concerning railways still remain to be decided, the more important being those relating to the establishment of a Joint Standing Machinery for the settlement of disputes. It has been decided not to accept the recommendation that workers required, after confirmation, to undergo periodical medical examination should have the right to be examined, if they desired by an independent specialist, as railway medical officers are adequate for the purpose; and so long as railway administrations are responsible for the safety of the travelling public they must be guided by the opinion of the principal or Chief Medical Officers of Railways to whom employees, who have been examined by District Medical Officers, have a right of appeal. It has also been decided not to preclude railway medical officers from private practice. Agents of State-managed Railways have, however, been advised to instruct their Chief Medical Officers to see that District Medical Officers do not indulge in private practice to an extent which prevents them from carrying out properly their duties to the railway staff and their families.

85. Security of Service-Rules regulating discipline and rights of appeal.—In paragraph 81 of the report for 1935-36 mention was made of the promulgation of the "Rules regulating the discipline and rights of appeal of non-gazetted railway servants", in supersession of the rules regulating the discharge and dismissal of non-gazetted employees, which were in force previously. Certain minor amendments were made to the former rules, principal among them being changes in rules 8 and 11 referring to the removal of an employee from service in exceptional circumstances and provision of discretionary power for competent authority to allow an employee, who may have been placed under suspension, to resume duty in certain circumstances.

86. Meetings with the All-India Railwaymen's Federation.—During the period under review the Railway Board met the representatives of the All-India Railwaymen's Federation on two occasions, once in July 1936 and again in February 1937. The subjects discussed at the meeting held in July 1936 were the Railway Board's rules relating to staff retrenchments and the employment of retrenched staff, new scales of pay and grievances of accounts staff so far as these subjects related to State-managed Railways. At the meeting held in February 1937 the following subjects were discussed:—

(i) Draft payment of Wages (Railways) Rules published by the Government of India, in the Department of Industries and Labour, Notification No. L. 3070, dated the 15th October 1936; and

(ii) the establishment of Joint Standing Machinery for dealing with industrial relations on Railways.

The suggestions put forward by the All-India Railwaymen's Federation at these two meetings are under the consideration of the Railway Board.

87. Bengal Nagpur Railway Strike.—The Agent, Bengal Nagpur Railway, reported to the Railway Board in a telegram, dated the 14th December 1936, that in response to general strike called by the Bengal Nagpur Railway Indian Labour Union from 22 hours on the 13th December, labour force at Khargpur shops did not attend work on the 14th December. He also reported that certain elements of inferior yard and running staff absented themselves from duty at main centres such as Shalimar, Khargpur, Bhojudih and Adra.

The circumstances leading to the strike were that 27 cooly mechanics of train examining branch at Bhojudih in Adra District who were surplus to requirements, were, as an alternative to discharge, offered employment elsewhere in a lower grade and on lower scale of pay, pending re-absorption in the former grade as vacancies occurred. These men, acting on the advice of the Bengal Nagpur Railway Indian Labour Union, stated that they were willing to go on transfer provided they were neither reduced in grade nor in pay but refused to accept the offer of employment on lower grade or lower pay. After giving the men ample time for reconsideration, the railway administration issued notices of discharge. Certain other train examining and shed staff, about 1,000 in number, absented themselves from duty without warning. These men were allowed 24 hours to resume work, and those who failed to do so were dismissed. The Bengal Nagpur Railway Indian Labour Union subsequently issued a call for a general strike, which met with considerable response.

Coaching services were maintained and goods services in the mineral, colliery, Khargpur and East Coast areas up to 80 per cent. and in Central Provinces area up to 50 per cent. of normal. The strike continued for sometime without any event of great importance. On the 14th January 1937, the Government of India announced that they had declined an application for the appointment of a Board of Conciliation under the Trade Disputes Act in connection with the strike, and that though no further application had been made the Government of India had considered the appointment of a Court of Inquiry to enquire into certain matters connected with the dispute and had decided that there was no justification for appointing such a Court. The strike was ultimately called off by the Bengal Nagpur Railway Indian Labour Union from 22 hours on the 10th February 1937. The Agent agreed to permit the 27 cooly mechanics who were discharged from service during the commencement of the strike to resume duty in the lower grade with the assurance of restoration to their former grade as vacancies occurred. The Agent also agreed that the men who had refused to work without warning and who were dismissed would be reinstated with the exception of approximately 50 men whose places had been permanently filled and who would be placed on a waiting list and re-employed as suitable vacancies occurred. On the 19th February 1937, the Agent informed the Bengal Nagpur Railway Indian Labour Union, Khargpur, that in view of the actions of its responsible representatives during the previous eight months and of the attitude adopted by the Union in connection with the events which culminated in the strike, it was clear that the administration could have no confidence in the Bengal Nagpur Railway Indian Labour Union as then constituted and administered and that in accordance with the warning which had been communicated to the Union in October 1936 official recognition was withdrawn.

Mr. Giri, the President of the Bengal Nagpur Railway Indian Labour Union, made certain allegations that the Bengal Nagpur Railway administration had failed to implement the terms of settlement on which the strike was called off by the Bengal Nagpur Railway Indian Labour Union and that the withdrawal of recognition of the Union was not justified. In a communique dated the 25th March 1937 the Railway Board announced that with the full concurrence of the Agent, Bengal Nagpur Railway, they had decided

to appoint Mr. R. F. Mudie, C.I.E., O.B.E., I.C.S., to hold an enquiry with the following terms of reference:—

> "To enquire into and report on the allegations made by the President of the Bengal Nagpur Railway Indian Labour Union that the Bengal Nagpur Railway administration had failed to implement the terms of settlement of the strike as communicated by the Agent of the Bengal Nagpur Railway under his letter No. J. I, dated the 6th February 1937, to the President of the Bengal Nagpur Railway Indian Labour Union and accepted by the Union. Further to report whether the action of the Bengal Nagpur Railway administration in withdrawing recognition from the Union as at present constituted and administered was justified and whether the continued withholding of recognition was desirable."

It was also announced in the same communique that Lt.-Col. H. W. Wagstaff, M.C., R.E., Supervisor, Railway Labour, would be associated with Mr. Mudie as an adviser and that the inquiry was expected to commence about the middle of April 1937.

CHAPTER VII.

AMENITIES FOR PASSENGERS.

88. Railways have been steadily and systematically pursuing their policy of effecting improvements making for the greater comfort and convenience of passengers to the fullest extent to which funds are available. The following indicate broadly the policy followed :—

(a) *Train services.*—1,968,000 more passenger train miles were run and greater recourse was had to the provision of light trains giving more frequent and rapid service on certain sections;

(b) *Conveniences.*—Programmes were drawn up and worked to for the provision of additional waiting rooms and halls, covered and raised platforms, separate refreshment rooms for Hindus and Mahomedans and vendors' stalls;

Arrangements for the supply of drinking water were improved, and special action taken to ensure the washing, cleaning and disinfection of carriages, and particularly latrines in third class carriages.

(i) *Passenger train services.*

Many alterations were made in the train services to meet the changing demands of passenger traffic. Some of the more important changes are indicated below :—

Assam Bengal Railway.—Sanction was obtained to the maximum speed limit permissible over many sections being increased and the speed of trains accordingly accelerated generally. An additional fast train in each direction was introduced between Laksam and Ashuganj, also a through service between Silchar and Lalabazar. Through carriages between selected sections were also introduced. To improve communication between Calcutta and Upper Assam the Pandu-Lumding mixed trains were speeded up and connected with Eastern Bengal Railway trains at Amingaon, which enabled Upper Assam passengers to arrive Calcutta in the morning and leave at night.

Bengal and North-Western Railway.—One express train each way between Katihar and Cawnpore *viâ* the Muzaffarpur loop was introduced.

On each of the sections Gonda to Sitapur, Samastipur to Darbhanga, Sakri to Jaynagar and Sonepore to Chupra an additional passenger train was run.

One mixed train each way between Narkatiaganj and Bairagnia was converted to passenger and its run was extended to and from Darbhanga.

A light passenger train between Muzaffarpur and Bettiah was extended to and from Narkatiaganj.

Fifteen mixed trains each way running on nine sections were converted into passenger trains to provide a quicker service.

Bengal Nagpur Railway.—Nine additional local train services were introduced : of these some were light trains running only on selected days of the week, the days changing according to local needs.

Bombay, Baroda and Central India Railway—(Broad gauge).—The Frontier Mail from Bombay to Delhi was speeded up by 49 minutes.

Shuttle services between Daman Road and Bulsar (two trips each way), between Samni and Vagra were introduced.

The up and down mixed third class trains between Godhra and Dohad were extended to run to and from Baroda.

The steam shuttle between Borivli and Virar was replaced by the extension of the electric service.

Metre gauge.—The speeds of one passenger train from Agra and of two on the Malwa section were accelerated.

The timings of services on the Rewari-Bhatinda-Fazilka and the Cawnpore-Achnera sections were revised so as to suit local needs.

Through trains from Delhi to Ahmedabad were speeded up.

Burma Railways.—The Rangoon-Mandalay mail and express trains were speeded up by nearly two hours.

Through coaches for all classes were run on the Pyinmana-Kyaukpadaung branch and for upper class passengers only to Kalaw and Maymyo. As the stoppage of local trains at level crossings had proved satisfactory, 23 additional level crossing halts were introduced.

Eastern Bengal Railway.—The following extra trains were introduced :—

(i) Two shuttle trains each way between Ishurdi and Rajshahi and Parbatipur and Saidpur respectively.

(ii) One extra train each way between Calcutta and Naihati, Lalmanirhat and Amingaon, Rupsa East and Bagerhat.

(iii) Two extra trains each way between Narayanganj and Dacca.

East Indian Railway.—28 passenger trains (including ten light trains) were introduced on eleven sections and 14 uneconomical trains were withdrawn from seven sections.

The Delhi-Dehra Dun mixed and the Howrah-Dehra Dun expresses were amalgamated at Hardwar and run to Dehra Dun.

Sentinel coach services running on two sections were replaced by light train services.

The run of many trains was extended. The Sealdah-Delhi express running *viâ* Benares Cantonment was replaced by a Howrah-Delhi express running *viâ* Mirzapur.

Great Indian Peninsula Railway.—One shuttle train each way was introduced between Bhusaval and Khandwa, Kalyan and Kasara, Kalyan and Karjat and Bombay-Kalyan.

The up and down Jhansi passenger trains, Asangaon shuttles, and Badlapur shuttles were extended to and from Delhi, Atgaon and Karjat, respectively.

The passenger train running between Poona and Lonavla was extended up to Kalyan.

The up and down North-East parcels trains between Bombay and Delhi, two passenger trains between Bombay and Karjat, one mixed train each way between Agra and Bah and another between Agra City and Agra Cantonment and one mixed train each way between Karanja and Yeotmal were cancelled.

Jodhpur Railway.—On each of the sections—Jodhpur to Merta Road, Merta Road to Kuchaman Road, Chilo to Merta Road and Hyderabad (Sind) to Mirpur Khas, one mixed train each way was converted to a passenger train; also the mixed train running from Jodhpur to Luni Junction was similarly converted. One mixed train each way between Marwar Junction and Jodhpur and two mixed trains each way between Marwar Junction and Phulad were also introduced.

Madras and Southern Mahratta Railway (*Broad gauge*).—One passenger train each way was cancelled between Madras and Bitragunta and local requirements catered for by stopping the up and down Grand Trunk expresses at important stations. This arrangement was subsequently modified by extending the run of the passenger trains over the Bitragunta-Gudur section and cancelling certain stops of the expresses.

Two passenger trains running between Tenali and Chirala were extended to Vetapalemu. A passenger train was put on from Bezwada to Cocanada in the afternoon in place of the one formerly leaving in the morning.

With the increase of the maximum permissible speed from 30 to 45 miles per hour on the Nidadavolu-Narasapur branch, an accelerated service was run with four passenger trains and one mixed train in each direction in place of the previous one passenger and three mixed.

The Madras suburban service was re-arranged to provide quicker transport between suburban stations in Madras. The maximum permissible speed on the double line between Madras and Arkonam was increased from 60 to 70 miles per hour and the service accelerated wherever possible.

Metre gauge.—Two additional light passenger trains each way were introduced on the Gudivada-Masulipatam section, also one additional light train on the Gudivada-Bhimavaram section and three additional light trains in each direction between Hubli and Gadag were introduced. These measures afforded service at more frequent intervals.

North Western Railway.—In all 44 additional trains were introduced on 21 sections, aggregating to an increase of about 1,460 train miles per day. Seventeen unremunerative trains accounting for 1,142 train miles daily were cancelled.

With a view to speed up rail travel, on the broad gauge, the number of mail and express trains was increased from 23 (31st March, 1936) to 33 (31st March, 1937) and the number of other passenger trains was reduced from 342 to 334 by the elimination of uneconomical trains.

Rohilkund and Kumaon Railway.—Light passenger trains at accelerated speeds were run between Bareilly and Kathgodam and Bareilly and Mailani.

South Indian Railway—Broad gauge.—24 additional trains were introduced and the runs of 30 trains were extended.

Metre gauge.—50 additional trains were introduced and the runs of 27 trains were extended. A number of short distance trains were introduced chiefly on sections affected by bus competition. There was a general speeding up of trains. A through service between Jalarpet and Mangalore, connecting at Jalarpet, with Bangalore expresses to and from Madras Central, was arranged thus providing a through connected service between Madras Central and Mangalore.

Narrow gauge.—Train services were increased and halts provided to pick up passengers between stations.

(ii) *Booking Offices and Out-agencies.*

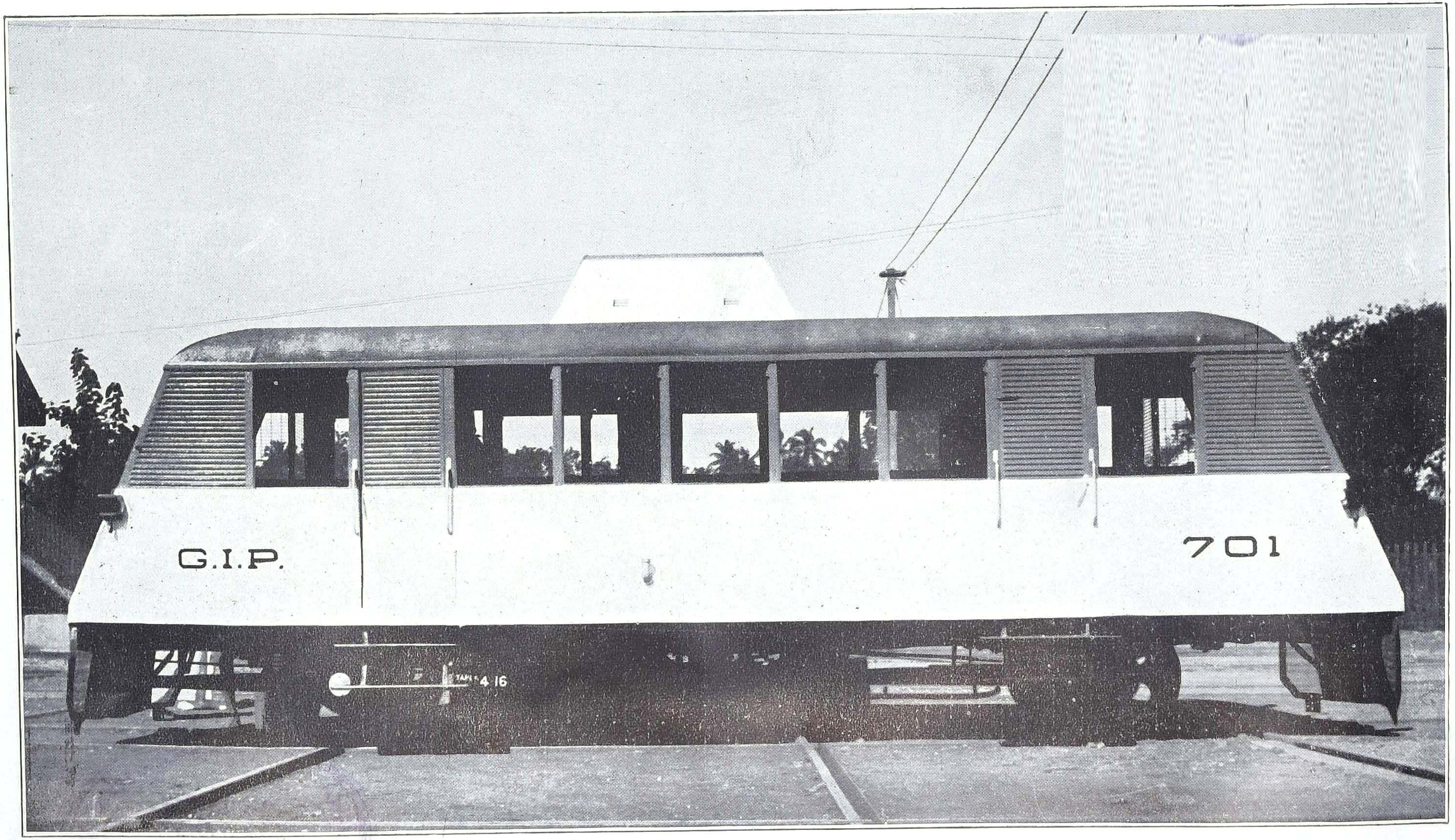
Assam Bengal Railway.—An additional booking office was opened at Chittagong. Temporary booking offices were opened at four stations during *melas*. Three new halts were opened.

Bengal and North-Western Railway.—At Benares (Sikroul) a branch booking office was opened for local booking of passengers. An extra ticket window was provided at Bairagnia. During *melas* twenty-six temporary booking offices were opened at eleven stations. Marufganj out-agency usually open for goods and parcels booking was opened temporarily for passenger booking.

At Kanauli, served by Bhaptiahi station, an out-agency was opened for goods and parcels traffic.

Bombay, Baroda and Central India Railway.—On the broad gauge, the flag station at Sewar was re-opened and on the metre gauge a new flag station was opened at Sanathal. Four additional halts were provided on the Daman Road-Bulsar section (broad gauge); and two more halts on the metre gauge. A new booking office for the issue of intermediate and third class main line tickets was opened at Church Gate station.

Eastern Bengal Railway.—Additions and alterations were made to the booking and parcel office at Koilaghat Street, Calcutta; the booking office at Rajbari was extended.



Broad Gauge Rail Car fitted with Ford Engine.

East Indian Railway.—Dakhineswar, Bally Ghat, Chandari, Khalari, Kumardubi, Loknath and Saiyid Sarawan flag stations were opened for passenger and parcel traffic. Thirteen other stations on commercial sidings serving sugar mills, paper mills, etc., were opened for various descriptions of goods traffic. Fifteen traffic sidings were also opened. Two out-agencies were opened at Ranchi and Bindki. The booking and enquiry office at Mussoorie Town agency was opened for the sale of tickets, etc.

Madras and Southern Mahratta Railway.—An out-agency for goods and parcels traffic was opened at Wai, served by Wathar station between Miraj and Poona. Out-agencies served by Bezwada station, were also opened at Jaggayyapeta, Nandigama and Kanchikacherla.

North Western Railway.—As usual a booking office for passengers and luggage was opened on the Mall at Simla during the summer season. A booking office at Montgomery Town was opened for passenger traffic only.

South Indian Railway.—New stations were opened at Valadi, Tiruttangal, Vaithilingapuram, Edavai, and Payyoli.

(iii) *Waiting rooms and waiting halls.*

Assam Bengal Railway.—Additional waiting rooms were provided at Thanda Kalibari, Haibargaon, Sibsagar Town and Chitosi Road. A new station with waiting rooms for upper and lower class passengers, at Chandpur-Kalibari and another lower class waiting room at Sapekhati were under construction. Cement benches were provided in the waiting halls at Pahartali, Dhalghat, Akhaura, Salda Nadi and Haibargaon stations.

Bengal and North-Western Railway.—One additional upper class waiting room was provided at Mohammadpur, and third class passenger halls built at Barauni Junction, Chowka Ghat, Nautanwa and Mahendru Ghat.

Bengal Nagpur Railway.—Waiting rooms were provided at Bankura and Vizianagram for intermediate class passengers. The third class waiting hall at Kalunga was cemented.

Bombay, Baroda and Central India Railway.—Waiting halls were provided at Dahisar, Kashipura, Vangaon and Bijwasam and an additional hall at Khar. The flooring of the third class waiting halls at Palej was improved.

Eastern Bengal Railway.—An upper class ladies' waiting room was provided at Malda. The waiting room at Siliguri was improved and the sanitary fittings renovated. A passenger waiting hall was built at Rajbari, also a third class waiting room for ladies at Badarganj. The intermediate and third class waiting halls at Naihati was improved.

East Indian Railway.—The following additional waiting rooms or halls were provided—

(*a*) Intermediate class—

46 for general use.

12 for ladies.

(*b*) Third class—

18 for general use.

Great Indian Peninsula Railway.—A third class waiting hall was provided at Pardhade. Waiting halls at Mandwa and Pagdhal were paved. The third class waiting hall at Kurla was improved. The remodelled Junnar Deo station, built on the townside, included a third class waiting hall, an upper class waiting room and a foot overbridge.

Jodhpur Railway.—A third class waiting room was provided at Baitu.

Madras and Southern Mahratta Railway.—Waiting halls were opened at Kondagunta and Angalakuduru.

His Exalted Highness the Nizam's State Railway.—An upper class waiting room was constructed at Kamaredi. Improvements were made to the

ladies' and gentlemen's waiting rooms at Nizamabad. Water taps were provided in the lavatories of waiting rooms at Aurangabad, Jalna and Nizamabad.

North Western Railway.—First and second class waiting rooms for ladies and gentlemen were provided at Qadian and Qila Sheikhupura. Waiting halls for intermediate and third class passengers were provided at Wazirabad, Karachi City, Sood and Harnai: waiting rooms for ladies only being provided at the first two stations. The tiled floors of the first class (ladies) and intermediate class (gentlemen) waiting rooms at Lahore were renewed. An Indian lavatory was provided in the ladies' waiting room at Gujranwala Town.

Rohilkund and Kumaon Railway.—The Indian ladies' waiting rooms at Sitapur and Lucknow City were improved.

South Indian Railway.—A waiting hall was provided at Karuppatti. Fourteen additional benches were provided in the third class waiting halls at nine stations.

The following statement summarises the number of waiting rooms and waiting halls provided on each Class I railway for the use of intermediate and third class passengers :—

—	A. B.	B. & N. W.	B. N.	B., B. & C. I.	Burma.	E. B.	E. I.	G.I.P.	Jodh-pur.	M. & S. M.	N. S.	N. W. C.	N. W. S.	R. & K.	S. I.
1. Total number of stations open for passenger traffic.	295	352	514	633	452	451	765	559	157	539	201	868	180	97	607
2. Number of stations at which waiting rooms or halls have been provided for intermediate class passengers :—															
(i) generally	11	5	14	1	..	8	94	*Nil*	*Nil*	*Nil*	*Nil*	12	3	*Nil*	*Nil*
(ii) for women only	59	10	14	1	..	4	49	*Nil*	*Nil*	*Nil*	*Nil*	15	2	3	*Nil*
3. Number of stations at which third class waiting rooms or halls have been provided :—															
(i) generally	238	250	461	478	452	425	397	467	107	495	201	664	110	95	587
(ii) for women only	128	34	69	2	*Nil*	313	162	13	4	14	2	48	12	12	13
4. Percentage of stations at which waiting rooms or halls have been provided as compared with the total number of stations open for passenger traffic :—															
(i) for intermediate class, generally	3·73	1·42	2·72	0·16	..	1·77	12·3	*Nil*	*Nil*	*Nil*	*Nil*	1·38	1·67	*Nil*	*Nil*
(ii) for intermediate class, women only.	20·0	2·84	2·72	0·16	..	0·88	6·41	*Nil*	*Nil*	*Nil*	*Nil*	1·73	1·11	3·09	*Nil*
(iii) for third class, generally	80·7	71·0	89·7	75·5	100·0	94·2	51·9	83·5	68·1	91·7	100·0	76·5	61·1	97·9	96·7
(iv) for third class, women only	43·4	9·66	13·4	0·32	*Nil*	69·4	21·2	2·33	2·55	2·59	0·99	5·53	6·67	12·4	2·14

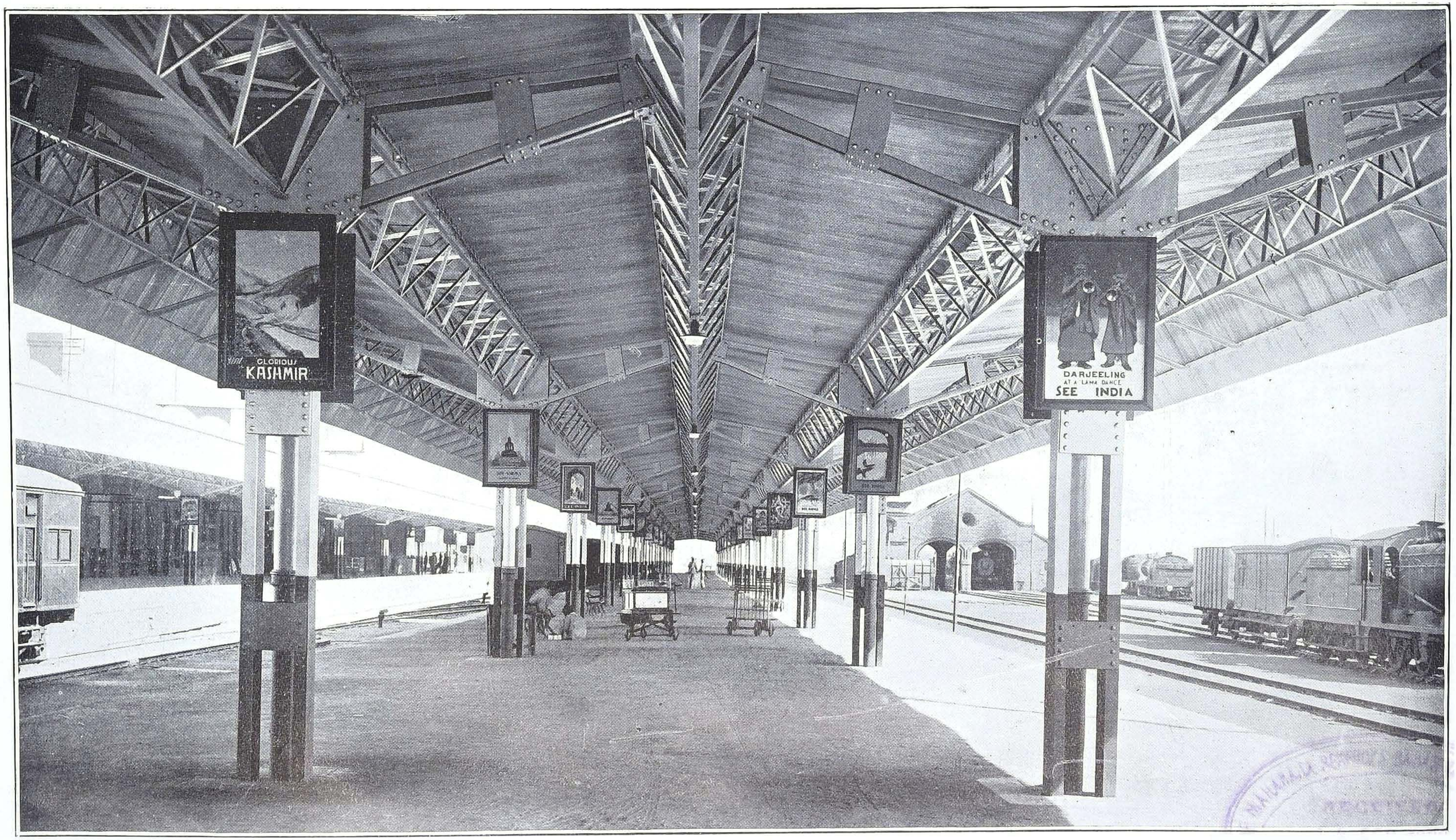
C.=Commercial. S.=Strategic.

(iv) The following statements show the present position in regard to platforms generally :—

(a) *Number of stations provided with covered platforms.*

—	A. B.	B. & N. W.	B. N.	B., B. & C. I.	Burma.	E. B.	E. I.	G.I.P.	Jodh-pur.	M. & S. M.	N. S.	N. W. C.	N. W. S.	R. & K.	S. I.
1. Total number of stations open for passenger traffic.	295	352	514	633	452	451	765	559	157	539	201	868	180	97	607
(i) Class D (or flag) stations	98	21	67	119	91	124	130	85	58	86	63	249	34	5	147
(ii) Other than class D (or flag) stations.	197	331	447	514	361	327	635	474	99	453	138	619	146	92	460
2. (i) Number of stations at which there are two or more platforms.	22	31	83	107	77	87	391	190	8	55	23	216	22	4	80
(ii) Total number of platforms at such stations.	53	76	176	262	158	233	970	452	25	155	56	514	27	12	216
(iii) Total number of covered platforms at such stations.	4	*Nil*	4	176	73	116	226	125	1	68	12	144	3	10	93
(iv) Percentage of (iii) to (ii)	7·55	*Nil*	2·27	67·2	46·2	49·8	23·3	27·6	4·00	43·9	21·4	28·0	11·1	83·3	43·1
3. (i) Number of stations other than class D at which there is only one platform.	175	300	374	354	296	245	301	311	91	398	127	322	132	88	380
(ii) Number of such stations at which there are covered platforms.	*Nil*	*Nil*	1	5	4	*Nil*	59	9	*Nil*	22	*Nil*	8	1	*Nil*	6
(iii) Percentage of (ii) to (i)	*Nil*	*Nil*	0·27	1·41	1·35	*Nil*	19·6	2·89	*Nil*	5·53	*Nil*	2·48	0·76	*Nil*	1·58

C.=Commercial. S.=Strategic.



New Platform Roof at Kalka Station built according to Central Standards Office design.

(b) *Number of stations provided with platforms above rail level.*

—	A. B.	B. & N. W.	B. N.	B., B. & C. I.	Burma.	E. B.	E. I.	G.I.P.	Jodh-pur.	M. & S. M.	N. S.	N. W. C.	N. W. S.	R. & K.	S. I.
1. Total number of stations open for passenger traffic.	295	352	514	633	452	451	765	559	157	539	201	868	180	97	**607**
(i) Class D (or flag) stations . .	98	21	67	119	91	124	130	85	58	86	63	249	34	5	**147**
(ii) Other than class D (or flag) stations.	197	331	447	514	361	327	635	474	99	453	138	619	146	92	**460**
2. (i) Number of stations other than flag stations at which there are more than one platform.	22	31	76	100	62	82	371	162	8	55	10	209	11	9	**80**
(ii) Total number of platforms at such stations.	53	76	159	246	128	221	936	396	25	156	30	500	27	24	**216**
(iii) Total number of platforms at such stations above rail level.	5	62	132	229	50	186	600	314	18	156	29	583	21	20	**146**
(iv) Percentage of (iii) to (ii) . .	9·43	81·6	83·0	93·1	39·1	84·2	64·1	79·2	72·0	100·0	96·7	76·6	77·8	83·3	**67·6**
3. (i) Number of stations at which there is only one platform.	273	321	428	486	375	364	359	344	149	484	178	485	168	87	**527**
(ii) Number of such stations at which platforms are above rail level.	6	158	123	197	39	135	171	196	7	319	70	191	90	27	**279**
(iii) Percentage of (ii) to (i) . .	2·20	49·2	28·7	40·5	10·4	37·1	47·6	56·9	4·70	65·9	39·3	39·4	53·6	31·0	**52·9**

C. = Commercial. S. = Strategic.

(v) *Refreshment rooms for Hindus and Mahomedans.*

The table below shows the number of stations on Class I Railways, provided with refreshment rooms separately and jointly for Hindus and Mahomedans on 31st March 1937, and of these the additions that were made during 1936-37.

Name of Railway.	Number of stations provided with refreshment rooms for the use of: Hindus and Mahomedans.	Hindus only.	Mahomedans only.	Number of refreshment rooms which were provided during the year: Hindus and Mahomedans.	Hindus only.	Mahomedans only.
Assam Bengal	5	1	..	..	2	..
Bengal and North-Western . .	..	10	10	..	1	1
Bengal Nagpur	13	..	..	..	..	..
Bombay, Baroda and Central India	..	8	5	..	..	..
Eastern Bengal	2	13	8	..	..	..
East Indian	15	4	4	..	..	..
Great Indian Peninsula . .	..	5	5	..	..	..
Jodhpur	3	1	..	..	..	..
Madras and Southern Mahratta‡ . .	..	34*	7	..	..	..
His Exalted Highness the Nizam's State.	10	..	..	..	..	..
North Western	..	22	22	..	..	..
Rohilkund and Kumaon . .	1	..	..	..	..	..
South Indian	34	..	5	..	..	..

* Hindu refreshment rooms though run on Hindu lines supplying vegetarian Hindu food are open to other communities also.

‡ One Indian Christian refreshment room is also run of Mormugao Harbour.

(vi) *Vendors' stalls in waiting halls and on platforms.*

Assam Bengal Railway.—A standard tea stall with a kitchen for the use of Marwaris was provided at Pandu and one for Mahomedans at Manipur Road.

Bengal and North-Western Railway.—Vendors' stalls are provided at 38 stations. Tea stalls are also in use at 12 stations.

Bengal Nagpur Railway.—There are vendors' stalls at 65 stations.

Bombay, Baroda and Central India Railway.—Stalls are provided at 85 stations on the broad gauge and 32 stations on the metre gauge. Stalls were open during the year at Bombay Central (Local), Goregaon, Kandivlee, Dahisar, Bhayndar, Nalla-Sopara and Netrang.

Burma Railways.—There are 330 platform vendors and 391 stall vendors.

Eastern Bengal Railway.—There are vendors' stalls at 74 stations. New stalls were opened at Radhikapur, Rangapara North and Gafargaon. The stalls at Mathurapur Road, Lakshmikantapur, Goalundo and Nabadwip Ghat were closed for want of sufficient patronage.

East Indian Railway.—There are stalls at 115 stations. New stalls were opened at the following ten stations :—

Suri.
Sitarampur.
Ranchi Road.
Chola.
Naini.
Sarsaul.
Akbarpur.
Moradabad.
Roorki.
Gajroula.

Great Indian Peninsula Railway.—Sweetmeat, fruit and tea stalls operated at 134 stations. A new stall was provided at Niphad.

Jodhpur Railway.—Vendors' stalls are provided at nine stations. One stall was opened during the year at Patoyun.

Madras and Southern Mahratta Railway.—136 stalls are in service.

His Exalted Highness the Nizam's State Railway.—123 stalls are in service.

North Western Railway.—Stalls are in service at 125 stations. Four stalls one each at Nabha and Simzai and two at Sakrand were provided. Two tea stalls at Chichoki Mallian were shifted to Qila Sheikhupura. The usual arrangement for providing tea tables in addition to stalls at certain important stations was continued.

Rohilkund and Kumaon Railway.—13 stations are provided with stalls.

South Indian Railway.—Tea stalls were opened at Fernhill, Tirukoilur, and Coonoor, fruit stall bunks at Satur and Shoranur and a Mahomedan light refreshment stall at Podanur. At the end of the year there were 170 stalls.

The following statement summarises the number of stations on Class I Railways, at which there were vendors' stalls :—

Railway.	Number of stations at which stalls were in service on 31st March, 1937.	Number of stalls opened during the year.
Assam Bengal	52	2
Bengal and North-Western	38	..
Bengal Nagpur	65	..
Bombay, Baroda and Central India	124	7
Burma	391*	..
Eastern Bengal	74	3
East Indian	115	10
Great Indian Peninsula	134	1
Jodhpur	9	1
Madras and Southern Mahratta	128	..
His Exalted Highness the Nizam's State	112	..
North Western	125	4
Rohilkund and Kumaon	13	..
South Indian	100	..

* Stall vendors.

(vii) *Water supply for passengers.*

Assam Bengal Railway.—(a) *Large stations.*—Water taps are provided on the platforms and at train times watermen are also employed at a number of stations to supply drinking water.

(b) *Small stations.*—A supply of clean chlorinated water is always available at all stations, in addition, English filters are provided at twenty-four stations.

Tube wells were provided at Chowdhurihat, Kanchannagar, Katakhal and Lanka and an ordinary well at Kayasthagram. One drum on wheels was provided at Chittagong to supply water to passengers.

27 watermen were permanently employed at 25 stations and an additional waterman was employed at Chittagong during the hot weather months.

Bengal and North-Western Railway.—(a) *Large stations.*—Hydrants are provided on station platforms. Water is also supplied to passengers in trains by watermen provided with wheeled water tanks and buckets.

(b) *Small stations.*—Fresh cool drinking water is kept ready in buckets in station verandahs and supplied to passengers in trains by watermen or other staff specially deputed for the purpose. At engine watering stations hydrants are also provided for the supply of fresh water to passengers.

124 watermen were permanently employed at 99 stations: 154 additional watermen were engaged temporarily during the hot weather months.

Bengal Nagpur Railway.—(a) *Large stations.*—Water taps are provided on station platforms and in waiting halls. Watermen also attend all passenger trains with water in drums on wheels: these drums are kept in especially designed shelters in order to keep the water cool.

(b) *Small stations.*—136 drums on wheels have been provided for the supply of water through watermen.

During the year 14 drinking water shelters were provided. 3 water taps were fixed in third class waiting halls of 3 stations and 4 additional taps were provided on the platform at Chhindwara.

175 watermen were permanently employed at 133 stations and 108 additional watermen were engaged temporarily during the hot weather months.

Bombay, Baroda and Central India Railway.—(a) *Large stations.*—Hydrants are provided at suitable points on station platforms and in waiting halls. Water huts are also erected for the storage of cold water in earthenware pots. Permanent Hindu and Mahomedan watermen supplemented by temporary men in the summer season were employed for distribution of water to passengers in trains.

(b) *Small stations.*—Where no hydrants are provided, permanent watermen helped by temporary hands engaged for the hot weather months supplied cool drinking water from special huts erected on the platforms.

At 31 stations on the broad gauge and at 304 stations on the metre gauge, 42 and 477 watermen, respectively, were employed permanently. In addition 102 and 39 temporary watermen were provided.

Burma Railways.—In addition to the provision of hydrants on the platforms at all principal stations 23 watermen were also employed.

Eastern Bengal Railway.—Tube wells were provided at Lalmanirhat, Beharigani and Birati and pipe lines with hydrants were laid at Kasim Bazar and Dhubri.

102 permanent watermen were employed at broad gauge stations. In addition 11 watermen were employed temporarily during the hot weather months.

East Indian Railway.—Hydrants are provided at large stations. A trellis type of kiosk and cemented stands for *gharras* are provided at a large number of stations. The *gharras* are kept in the shade on wet sand and so keep the water cool. At selected stations wheeled carts and trollies carrying two or three earthen chatties or *matkas* were provided. On the Allahabad Division water is supplied to passengers from specially designed trollies carrying *matkas*, the special feature of which is that dippers can be dispensed with which minimises the risk of contamination by hand.

907 watermen were permanently employed at 461 stations and 699 temporarily during the hot weather months.

Great Indian Peninsula Railway.—(a) *Large stations.*—Permanent watermen are employed and a sufficient number of water chatties filled with cool drinking water are kept at suitable places on the platforms in special shelters separately for Hindus and Mahomedans. In order to enable watermen to serve a number of passengers within the time that trains stopped, five water trollies were provided as an experimental measure at Bhusaval, Nagpur, Itarsi, Jhansi and Jubbulpore. Ladles with chains were also supplied at most of the big stations as these provide a more hygienic method of taking water from the chatties.

(b) *Small stations.*—A sufficient number of *kankharies* and chatties containing cool drinking water were placed in shelters.

281 watermen were permanently employed at 208 stations and 381 more temporarily during the hot weather months.

Jodhpur Railway.—125 watermen were permanently employed at 103 stations throughout the year. 15 additional watermen were engaged temporarily during the hot weather months.

Madras and Southern Mahratta Railway.—One or more five gallon earthenware pots fitted with a brass cock and tin lid are placed on stands at all stations. Watermen were also employed at many stations to supply cool drinking water to passengers; at certain stations water taps were also provided.

141 watermen were permanently employed: 39 watermen were also employed temporarily during the hot weather months.

His Exalted Highness the Nizam's State Railway.—Water taps are provided at all important stations and also at some small stations. There were two permanent watermen each at 3 stations and one each at 9 stations. During the hot weather, drinking water was supplied in all passenger trains by a travelling waterman.

North Western Railway.—At all important stations water shelters with a sufficient number of *mutkas, gharas* and *mutts* containing cool drinking water are provided in waiting halls and platforms. Three issues of new earthen vessels are made during the year. Brass *garvis* and aluminum mugs with handles, are used for the supply of water to Hindus and Mahomedans respectively. Tube wells with hand pumps were provided at certain stations and hand barrows containing cold water are in use at principal stations. At large stations separate watermen are deputed to attend to ladies' compartments and at small stations watermen are instructed to attend the ladies' compartments first. Water hydrants are also provided at certain stations for the use of passengers.

1,474 watermen were employed permanently at 893 stations and 856 additional watermen temporarily during the hot weather months. Arrangements were also made for the supply of cold water by travelling watermen to passengers travelling by day trains on certain sections.

Rohilkund and Kumaon Railway.—(a) *Large stations.*—Twenty water carts of improved pattern were in use for the supply of cold water to passengers.

(b) *Small stations.*—In addition to cool drinking water placed in buckets for the use of passengers, pumps were fitted at certain stations.

53 watermen were employed permanently at 42 stations and 37 watermen were engaged temporarily during the hot weather months.

South Indian Railway.—(a) *Large stations.*—In addition to the provision of hydrants, water tubs and drums on platforms, water carriers were detailed to supply water to passengers in trains.

(b) *Small stations.*—At some, hydrants were provided. Water was also stored in drums kept in a special shelter.

Two 100-gallon water tanks were erected on temporary wooden staging at Mangalore, and a 75-gallon water drum, with masonry platform at Sivarakottai.

(viii) *Restaurant or buffet car services.*

Assam Bengal Railway.—Dining cars between Hojai and Furkating were withdrawn. Kitchen cars were provided on mail trains between Pandu and Tinsukia.

Bengal Nagpur Railway.—Restaurant cars catering in European style were run on the Bombay and Madras mail trains.

Bombay, Baroda and Central India Railway.—Restaurant cars catering in European style were run on the following trains :—

(i) Frontier mails between Bombay and Delhi,
(ii) Ahmedabad-Delhi mails,
(iii) Ahmedabad-Delhi expresses.

Third class carriages with certain compartments set apart for catering in Indian style for Hindus and Mahomedans were run on :—

(i) Kathiawar express trains between Bombay Central and Viramgam,
(ii) Express trains between Bombay Central and Delhi.

Eastern Bengal Railway.—Restaurant cars for upper class passengers, catering in European style, continued to run between Calcutta and Parbatipur on the Assam mails.

East Indian Railway.—Restaurant cars catering in European style were provided on 6 services :—

Nos. 1 up and 2 down—Calcutta-Delhi-Kalka Mails.
Nos. 7 up and 8 down.—Bombay Mails.
Nos. 5 up and 6 down—Calcutta-Punjab Mails.

On the up and down Punjab express trains restaurant cars for lower class passengers were run between Howrah and Saharanpur. Five bogie third class carriages converted into specially designed Indian restaurant cars were running on the line.

Great Indian Peninsula Railway.—Restaurant cars catering in European style were run on fourteen trains and those catering in Indian style on two trains. Buffet cars were run on four trains. The combined 1st and 2nd class buffet car running on the Poona mail was altered to a first class buffet and dining car to meet the additional traffic arising from the discontinuance of the daily running of the " Deccan Queen ".

Jodhpur Railway.—Restaurant cars catering in European style were run on mail trains between Marwar and Hyderabad (Sind). Refreshment cars catering in Indian style were run between :—

Marwar-Hyderabad (Sind) 3 up and 4 down mail trains.
Hyderabad (Sind)—Hyderabad (Sind) *viâ* Mirpur Khas.
Pithoro and Jhudo 11 up and 12 down trains.
Jodhpur-Hyderabad (Sind) 9 up and 10 down mixed trains.
Sujangarh-Degana 29 up and 30 down mixed trains.

Indian buffet cars providing light refreshments were run between Jodhpur and Phalodi on 73 up and 74 down mixed trains.

Madras and Southern Mahratta Railway.—Restaurant cars catering in European style were run on 7 mail and express trains.

Refreshment cars catering in Indian style were run on 24 trains.

His Exalted Highness the Nizam's State Railway.—There are 4 buffet cars, with kitchens and separate dining accommodation for Hindus and Mahomedans. Two were run daily on 1 up and 2 down passenger trains between Wadi and Bezwada and two on 9 up and 10 down trains between Secunderabad and Purli-Vaijnath.

North Western Railway.—Restaurant cars catering in European style were run on the following trains :—

Karachi mail trains—between Lahore and Rohri.

Quetta mail trains—between Rohri and Karachi.

Frontier Mails—between Lahore and Rawalpindi.

Punjab-Calcutta Mail—between Lahore and Jullundur city.

Dining cars for Hindus and Mahomedans were run on the following trains :—

Bombay express trains—between Lala Musa and Delhi.

Karachi mail train—between Lahore and Rohri.

Rohilkund and Kumaon Railway.—Restaurant cars catering in European style were run on the up and down Agra-Kathgodam express, and Bareilly-Kathgodam light passenger.

South Indian Railway.—Dining cars were run on the :—

(i) Indo-Ceylon express trains—between Trichinopoly and Dhanushkodi,

(ii) Blue Mountain express trains—between Erode and Mettupalaiyam during the hill season.

Indian buffet cars, providing light refreshments, were run on the following trains :—

Dhanuskodi Fast Passengers—between Madras (Egmore) and Dhanushkodi.

Trivandrum Fast Passengers—between Madras (Egmore) and Shencottah (*viâ* Chord).

Shencottah Passengers—between Madras (Egmore) and Shencottah (*viâ* Main line).

The following summarises the restaurant car services during 1936-37 :—

Railway.	Number of trains on which restaurant cars were run, catering in		Number of trains on which buffet cars were run.	Remarks.
	European style.	Indian style.		
Assam Bengal	2*	..	..	* Kitchen cars.
Bengal Nagpur	2	..	..	
Bombay, Baroda and Central India	6	4	..	
Eastern Bengal	2	..	..	
East Indian	6	2	..	
Great Indian Peninsula . .	14	2	4	
Jodhpur	2	8†	2	† Refreshment cars.
Madras and Southern Mahratta .	7	24†	..	
His Exalted Highness the Nizam's State.	..	..	4	
North Western	7	4	..	
Rohilkund and Kumaon . .	3	..	..	
South Indian	4	..	6	

(ix) *Improvements carried out in existing lower class carriages.*

With a view to affording additional security for women travelling in lower class female compartments, orders were issued by the Railway Board in January 1937, that two additional alarm pulls in easily accessible positions should be provided in those female compartments in which alarm pulls are now located only above the body side doors and that existing stock should be fitted accordingly as the coaches pass through shops for repairs. In accordance with these orders 43 female compartments on the East Indian

Railway and 15 on the Assam Bengal Railway and a number of carriages on the Great Indian Peninsula and North Western Railways have been provided with additional alarm pulls in easily accessible positions. Two additional alarm pulls are being fitted in all large third class compartments of the Bengal Nagpur Railway.

Out of 107 third class carriages on the Assam Bengal Railway, 105 have been provided with inter-communication windows on partition between male and female compartments.

Safety catches have been provided in the windows of 43 intermediate class compartments on the East Indian Railway.

Female compartments on the South Indian Railway are being provided with window bars and with outside indication boards suitably illuminated at nights.

To distinguish at night compartments set apart for females, all the female compartments on the Assam Bengal Railway have been fitted with female plaques. 58 out of 124 intermediate and third class female compartments have been fitted with illuminating glass panels showing the class of carriages.

More dynamo fitted third class carriages have recently been placed on the metre gauge section of the Bombay, Baroda and Central India Railway, to provide more efficient lighting in ordinary trains as well as excursion specials. 10 watt. vacuum lamps in third class carriages on the Eastern Bengal Railway continue to be replaced by 15 watt. gas filled lamps as coaches pass through shops. The lighting arrangements of third class carriages on the North Western Railway have been improved by the replacement of 15 watt. lamps with 20 watt. lamps. 37 intermediate class ladies' compartments were each provided with an additional internal light on the East Indian Railway.

The interior of all third class coaches on the Burma Railways are now being painted slate grey above the waist rail which gives a more pleasing appearance than the former baroleum finish. On the North Western Railway, to brighten the interior of lower class stock, these are now being painted light buff colour from cant rail to garnish rail and dark buff below the garnish rail.

Investigations are in hand on the Eastern Bengal Railway with a view to making further improvements in the cushions and in the interior painting of intermediate class compartments so as to make travel in that class more attractive and comfortable.

The third class compartments of 15 brake, luggage and third class coaches on the Great Indian Peninsula Railway have been built on the lines of the experimental third class coach with flush type latrine. The arrangement in these carriages, it has been ascertained, is very popular with passengers.

On the North Western Railway, the provision of hat pegs and coat hooks, reduction in the length of central longitudinal seats in intermediate and third class carriages, replacing canvas covered cushions by imitation leather and conversion of existing centre double seats into single seats in intermediate class carriages, are being arranged. 78 broad gauge carriages on the South Indian Railway have been provided with a third foot step and 98 broad gauge carriages with additional hand rails.

(x) *Improvements carried out in the latrines of lower class carriages.*

The improvement of latrines in lower class carriages continues to receive attention.

An improved type of automatic flushing arrangement for intermediate and third class carriage latrines is now being fitted on the Assam Bengal Railway. On the North Western Railway commodes have been replaced with floor pans in latrines of intermediate class carriages. Cast iron enamelled

lavatory pans are being fitted in latrines of third class carriages of the Bengal Nagpur Railway where the cement stools are broken down.

Electric lights have been provided in the latrines of 421 carriages on the Assam Bengal Railway and in a number of carriages on the North Western Railway.

149 intermediate and third class carriage latrines on the Assam Bengal Railway have been fitted with brackets for holding *lotas* and soap, and iron coat hooks have been provided in all intermediate and third class latrines. On the North Western Railway latrines of a number of lower class carriages have been fitted with small shelves. Latrines of 19 carriages on the Jodhpur Railway were provided with water tanks, coat hooks and frosted glass windows, and 93 hat pegs have been fitted in the lavatories of metre gauge third class carriages on the South Indian Railway. Ventilation opening for latrine windows has been provided on the Madras and Southern Mahratta Railway.

The old Bengal and North-Western Railway carriages without latrines or with old type latrines are being fitted with improved type latrines as they pass through shops for re-building.

On the Rohilkund and Kumaon Railway three standard size latrines instead of two have been provided in each of the two bogie third class carriages rebuilt during this year. Lavatories of a number of lower class carriages have been enlarged on the Jodhpur and North Western Railways.

(xi) *Arrangements to ensure cleanliness of latrines in passenger trains.*

Assam Bengal Railway.—Sweepers are provided at starting and junction stations to ensure the cleanliness of latrines in passenger trains. The latrines are thoroughly cleaned and sprayed with a disinfectant at starting stations, also *en route* at junctions at reasonable hours or when requests are made, at all times. Automatic flushing apparatus was fitted in the latrines of 66 lower class carriages. Train examiners were instructed to give special attention to this matter and District and Assistant Officers also made frequent inspections.

Bengal and North-Western Railway.—Every morning latrines on trains are cleaned and disinfected at carriage examining stations under the personal supervision of the carriage examiners.

Bengal Nagpur Railway.—The latrines of third class carriages are cleaned by a strong solution of caustic soda and further disinfected with phenyle.

Bombay, Baroda and Central India Railway.—The tanks of carriages are filled at starting stations and replenished at large stations *en route* by special staff. On the broad gauge notices giving the names of stations at which sweepers are specially detailed are exhibited in lavatories of third class carriages, advising the public to inform the guard or station staff where sweepers' services are required. On the metre gauge, lavatories of carriages are cleaned by sweepers provided at selected stations.

Burma Railways.—Extra sweepers for cleaning latrines in third class carriages were posted at important stations where through trains had a long halt.

Eastern Bengal Railway.—As in the previous year the latrines in all carriages were washed, cleaned and disinfected at terminal stations, and special arrangements were made for cleaning at three intermediate stations on the broad gauge and four stations on the metre gauge. Sweepers were also kept in readiness at other stations to attend to latrines of carriages on through trains. Arrangements were made to fill the lavatory tanks of intermediate and third class compartments at eleven stations.

East Indian Railway.—With a view to improve the methods of cleaning latrines of running trains, long flexible rubber hoses leading from overhead watering pipes were used to flush out the lavatories during the time of halts

of trains. This undoubtedly effected improvement but the matter is receiving further attention.

Great Indian Peninsula Railway.—Latrines are flushed with water, then scrubbed down with soap and water, flushed again with water and finally disinfected before the commencement of each trip. Sweepers are posted at intermediate stations to clean lavatories when compartments are unoccupied or at the request of passengers when occupied. Water tanks in each third class lavatory are always filled prior to the commencement of a trip and also at certain specified stations *en route.*

Jodhpur Railway.—Carriage tanks are filled at terminal stations and at intermediate engine changing stations. At stations where trains stop for a sufficiently long time, the staff attend to latrines if and when desired by passengers.

Madras and Southern Mahratta Railway.—Carriage tanks on all trains are filled with water and latrines cleaned at starting stations and at suitable stations *en route.* At all important stations sweepers are detailed to attend to each train to clean latrines.

On the Guntakal district, sweepers were detailed to accompany trains to clean all latrines in the early hours of the morning as an experimental measure.

His Exalted Highness the Nizam's State Railway.—At all starting stations and at junctions, staff were instructed to fill up water tanks of all passenger carriages and to sweep and clean all latrines.

North Western Railway.—Instructions were again issued to the staff to give particular attention to the cleanliness of latrines in passenger carriages and to see that overhead tanks of carriages were filled at all important stations starting or road side. Special arrangements were also made to clean the latrines of all classes of carriages on running trains during the early hours of the morning. Strict watch on this was kept by the supervising staff.

Rohilkund and Kumaon Railway.—All tanks of passenger and mixed trains are filled at starting and suitable intermediate stations. At all carriage examining stations sweepers are posted to clean and disinfect latrines.

South Indian Railway.—The lavatories in carriages on trains are cleaned at starting stations and at stations *en route*, where train examining staff were posted. Time permitting, lavatories are cleaned at other stations also and on special request by passengers. Third class carriages on through trains are cleaned at some of the principal stations on the broad gauge and at Trichinopoly on the metre gauge.

(xii) *Overcrowding in third class carriages.*

Railways continued to take a census of passenger trains during the period of the year when traffic is normally heaviest in order to satisfy themselves that the carriages provided on regular trains are adequate. The results of these censuses showed that the accommodation available was generally sufficient and that cases of overcrowding were comparatively rare. Where overcrowding was observed, further investigation usually indicated that it was due to exceptional circumstances which could not have been easily foreseen, such as a sudden rush of marriage parties, etc. The figures recorded at these censuses were placed before the Local Advisory Committees concerned and the action taken was explained.

CHAPTER VIII.

MISCELLANEOUS.

89. Accidents.—(*a*) The following table shows the number of passengers, railway servants and other persons killed and injured in accidents on Indian Railways, excluding casualties in railway workshops, during the year 1936-37 as compared with the previous year :—

Cause.	Killed.		Injured.	
	1935-36.	1936-37.	1935-36.	1936-37.
A.—Passengers.				
In accidents to trains, rolling-stock, permanent-way, etc.	5	**13**	87	**72**
In accidents caused by movements of trains and railway vehicles exclusive of train accidents.	177	**164**	787	**729**
In accidents on railway premises in which the movement of trains, vehicles, etc., was not concerned.	3	**2**	27	**31**
Total .	185	**179**	901	**832**
B.—Railway servants.				
In accidents to trains, rolling-stock, permanent-way, etc.	16	**7**	135	**191**
In accidents caused by movements of trains and railway vehicles exclusive of train accidents.	164	**178**	2,306	**2,505**
In accidents on railway premises in which the movement of trains, vehicles, etc., was not concerned.	22	**16**	6,618	**7,038**
Total .	202	**201**	9,059	**9,734**
C.—Other than passengers and railway servants.				
In accidents to trains, rolling-stock, permanent-way, etc.	98	**56**	139	**81**
In accidents caused by movements of trains and railway vehicles exclusive of train accidents.	2,599	**2,769**	767	**802**
In accidents on railway premises in which the movement of trains, vehicles, etc., was not concerned.	25	**32**	84	**105**
Total .	2,722	**2,857**	990	**988**
GRAND TOTAL .	3,109	**3,237**	10,950	**11,554**

(*b*) Out of the total of 3,237 persons killed, 2,857 or 88 per cent. were other than passengers and railway servants and of this number 2,117 were trespassers, 567 were reported to be suicides and 50 were killed on railway premises otherwise than during the movement of trains, vehicles, etc. As compared with the previous year, the increase of 128 in the total number of passengers and other persons killed was principally under the heads "trespassers" (149) and "suicides" (25). The number killed in other accidents decreased by 46.

(*c*) The number of passengers killed decreased by 6 and those injured by 69 although there was an increase of about 2 million passenger and mixed train miles and 116 million passenger miles. The following statement shows the number of passengers killed and injured on all railways in accidents to trains, rolling stock and permanent-way, but excluding train wrecking and attempted train wrecking, during each of the last 5 years as compared with the number of passengers carried :—

Year.	Number of passengers carried (in millions.)	Killed.		Injured.	
		Number.	Per million passengers carried.	Number.	Per million passengers carried.
1932-33	525	6	0·01	61	0·12
1933-34	513	17	0·03	136	0·27
1934-35	523	14	0·03	64	0·12
1935-36	527	5	0·01	87	0·17
1936-37	**532**	**13**	**0·02**	**72**	**0·14**

(*d*) On class I Railways the number of railway servants killed in accidents due to the movement of trains and railway vehicles, exclusive of train accidents, increased by 11 and the number injured by 205. As already pointed out, however, there was a considerable increase in train miles and consequently in other vehicle movements.

The following table analyses the main causes of these accidents :—

Cause.	KILLED.		INJURED.	
	1935-36.	**1936-37.**	1935-36.	**1936-37.**
Misadventure or accidental . . .	110	**118**	2,058	**2,255**
Want of caution or misconduct on the part of the injured person.	49	**50**	181	**179**
Want of caution or breach of rules, etc., on the part of servants other than the person injured.	1	**3**	23	**33**
Defective apparatus or system of working, dangerous places, dangerous condition of work or want of rules or systems of working.	..	..	..	..
Total .	160	**171**	2,262	**2,467**

(*e*) The following statement analyses the accidents which occurred during the last two years, grouped under the principal causes. A statement showing the accidents in greater detail for each railway will be found in Appendix D of Volume II of this report :—

	1935-36.	1936-37.
1. Running over cattle	9,538	**9,573**
2. Derailments not involving passenger trains .	3,077	**3,362**
3. Accidents due to failure of couplings and draw gear	2,025	**2,160**
4. Accidents due to failure of engines owing to faulty material, workmanship and operation arising from the working of the running staff	1,639	**1,545**
5. Accidents due to failure of engines owing to faulty material and workmanship in the Mechanical Department	403	**439**
6. Broken rails	321	**309**
7. Derailment of passenger trains . . .	273	**282**
8. Fires in trains or at stations or bridges .	220	**225**
9. Running over obstructions on the lines other than those at level crossings . .	201	**183**
10. Collision involving goods trains or goods vehicles	165	**182**
11. Accidents due to other rolling stock failures .	435	**164**
12. Attempted train wrecking	101	**84**
13. Flooding of permanent-way . . .	83	**83**
14. Trains running over obstructions or vehicles at level crossings	85	**78**
15. Land slips	68	**61**
16. Passenger trains running in the wrong direction through points but not derailed .	62	**59**
17. Collisions involving passenger trains . .	59	**48**
18. Accidents due to failure of axles . . .	52	**47**
19. Accidents due to failure of brake apparatus .	9	**33**
20. Collisions between light engines . . .	39	**23**
21. Train wrecking	10	**16**
22. Accidents due to failure of tyres or wheels .	20	**11**
23. Failure of bridges or tunnels . . .	4	**4**
24. Miscellaneous	325	**317**
Total .	19,214	**19,288**

(*f*) The total number of accidents shows an increase of 74 as compared with the previous year : against this the increase in total train miles was about 5·5 millions :—

(i) " Running over cattle " still accounts for the largest number of accidents, *i.e.*, 50 per cent. of the whole. Next in order, are " derailments not involving passenger trains " (17 per cent.), " accidents due to failure of couplings and draw gear " (11 per cent.), " accidents due to failure of engines owing to faulty working of the running staff " (8 per cent.), " accidents due to failure of engines owing to faulty material, etc." (2 per cent.), " broken rails " (2 per cent.) and " derailment of passenger trains " (1 per cent.).

(ii) Accidents in railway workshops accounted for the death of 15 and injuries to 7,280 railway servants, or an increase of 3 in the former and a decrease of 856 in the latter head.

90. The following are brief details of the more serious accidents which occurred during the year under review :—

On the 23rd May, 1936, No. 47 Up passenger train ran into the rear of No. 167 Up goods train which was standing on the main line of Warisaliganj station on the South Bihar branch line of the East Indian Railway, resulting in simple injuries to nine passengers and four members of the railway staff and serious injury to one railway servant. The damage to rolling stock and permanent way amounted to approximately Rs. 12,000.

On the 1st June, 1936, No. 78 Down mixed train, after leaving Wetlet station on the Burma Railways, derailed at mile 420/21, due to the bank having been washed away by abnormally heavy rain to a depth of three feet and length of 130 feet just short of a 6′-6″ girder bridge. The engine capsized and three passenger vehicles were damaged. Ten persons, including the engine crew, were injured but only one case was serious. The damage to rolling stock and permanent way amounted to approximately Rs. 38,163.

On the 18th June, 1936, No. 360 Down mixed train collided with an empty Up Mela Special standing on the main line of Kalayat station on the North Western Railway, resulting in the death of two and injuries to 63 passengers and injuries to two railway servants; except in two cases the injuries consisted of minor bruises and abrasions. The total damage to rolling stock and permanent way amounted to approximately Rs. 6,000.

On the 5th July, 1936, No. "A" Down Express goods train derailed between Mahesar and Pano Akil stations on the North Western Railway. The damage to rolling stock amounted to Rs. 7,000 and to permanent way to Rs. 40,000.

On the 21st July, 1936, the last vehicle of No. 2 A. C. B. passenger train derailed between Bahjoi and Dhanari stations on the Bareilly-Aligarh section of the East Indian Railway, resulting in the death of one passenger, who jumped from the train in alarm, and in injuries to three passengers. The total cost of damage amounted to approximately Rs. 5,000.

On the 7th September, 1936, No. 50 Up Delhi Madras Express was partly derailed near the outer signal of Bilochpura station, between Muttra and Agra, on the Great Indian Peninsula Railway, resulting in slight injuries to three passengers. The total damage amounted to approximately Rs. 40,000.

On the 13th September, 1936, No. 7/20 Down Special Goods train derailed near Dabla station, between Phulera and Rewari, on the Bombay, Baroda and Central India Railway. The damage to rolling stock amounted to Rs. 15,000 and to permanent way to Rs. 1,000.

On the 3rd December, 1936, Khulna Branch train No. 94 Down, *ex*-Dattapukur to Calcutta, entered the sand hump isolation dead-end provided at the north end of Dum-Dum Junction on the Eastern Bengal Railway, resulting in the death of one and injuries to 26 passengers and injuries to four railway servants. The damage to rolling stock amounted to Rs. 25,000.

On the 5th December, 1936, a collision occurred between No. 30 Down Passenger train and No. 41 Up Parcel Express at Barhan station on the East Indian Railway, resulting in the death of one and injuries to eleven passengers and injuries to two railway servants. The approximate damage to rolling stock amounted to Rs. 10,000.

On the 14th January, 1937, No. 35 Up passenger train ran into a motor lorry at a "C" class unprotected level crossing between Shadnagar and Timmapur stations on His Exalted Highness the Nizam's State Railway, resulting in the death of sixteen passengers in the motor lorry and injuries to eight.

91. Damage by floods, fire and other causes.—The year under review was a fortunate one in that there was no repetition of a cataclysm such as the earthquake which destroyed Quetta the previous year, and though railways were subjected to the usual floods, cyclones and other natural accidents, the resulting inconvenience and damage was, on the whole, relatively small. Thus the Assam Bengal Railway was subjected to cyclones on the 1st of May, 1936, and the 7th of October, 1936, and to flooding during August and September, but beyond holding up traffic for 2 or 3 days, derailing an empty wagon and causing some damage to roofs and menials quarters, there was no serious loss caused.

A cyclone over Teestamukh Ghat, Eastern Bengal Railway, on the 28th of May, 1936, on the other hand caused the sinking of several girder pontoons and a motor boat. The motor boat was later salved, but the pontoons valued at Rs. 7,800 were not recovered. Floods and consequent abnormal rises of rivers in the Eastern Bengal Railway area also involved that Administration in approximately Rs. 1 lakh in repair and protection works during the year.

On the 28th of October, 1936, the Madras and Southern Mahratta Railway broad gauge stations of Ongole, Bezwada and Masulipatam were struck by a severe cyclonic storm which was accompanied by a tidal wave at Masulipatam. Considerable damage was done to station buildings, staff quarters, etc., at various places in the affected area over a length of 70 miles and train services were disorganised by the interruptions to telegraph and telephone communications. A tank bund was also burst near Samalkot Junction resulting in a wash-away of the railway line near Medapadu. Travelling inwards, the cyclone struck also the metre gauge section between Vinukonda and Bezwada and the Guntur Macherla Branch causing similar damage over a length of about 40 miles. During the cyclone, several wagons capsized at Satulur and Phirangipuram, as also 4 bogie carriages occupied by passengers at Satulur, but fortunately with no injury to the passengers. The total damage was roughly assessed at Rs. 32,500.

On the Burma Railways there were eight breaches which caused interruptions to through communications for periods ranging from 4 to 10 days. The most serious accident, however, occurred on the 1st June, 1936, between Wetlet and Paukkan on the Mu Valley line where a small breach caused by a local cloudburst led to the derailment and capsizing of a mixed train, with injury to 10 passengers, 2 of whom subsequently died.

On the 5th November, 1936, a portion of the station yard river wall at New Martaban, Burma Railways, situated between the traffic crane and the first girder leading to the goods pontoon suddenly collapsed and slipped into the river. This portion was about 180 feet in length, and it pulled down with it a breadth of 40 feet of the Goods Transhipping Yard, the slide being 15 to 20 feet deep. The traffic crane and its jetty were pushed out into the river, all 16 piles of the jetty being sheared through. The last 3 bays of the transhipping shed also collapsed and the steel work was damaged. As the provision of a new river wall at the station appeared extremely costly, it was decided to abandon the station and to re-open Old Martaban station and provide the necessary ferry arrangements there.

Fires were responsible for considerable damage to thatched quarters and jute sheds on the Eastern Bengal Railway where the total amount of damage was assessed at approximately half a lakh of rupees.

On the 18th of September, 1936, in the Locomotive Workshops at Moghalpura, North Western Railway, an oxygen gas cylinder which was being used for decarbonising the valve parts of an engine, exploded, killing 2 men outright and causing serious injuries to 5, 3 of whom succumbed later and minor injuries to 35 others. The damage to structures through the concussion caused by the explosion amounted to Rs. 3,500.

92. Publicity.—In spite of the unsettled conditions created by the international situation, and the currency restrictions in force in certain countries, tourist traffic was well maintained.

Semi-permanent type Earthquake proof Officer's hut at Quetta, adopted for use during reconstruction.

TANJORE

MAHARAJA SERFOJI'S SARASWATHI MAHAL LIBRARY
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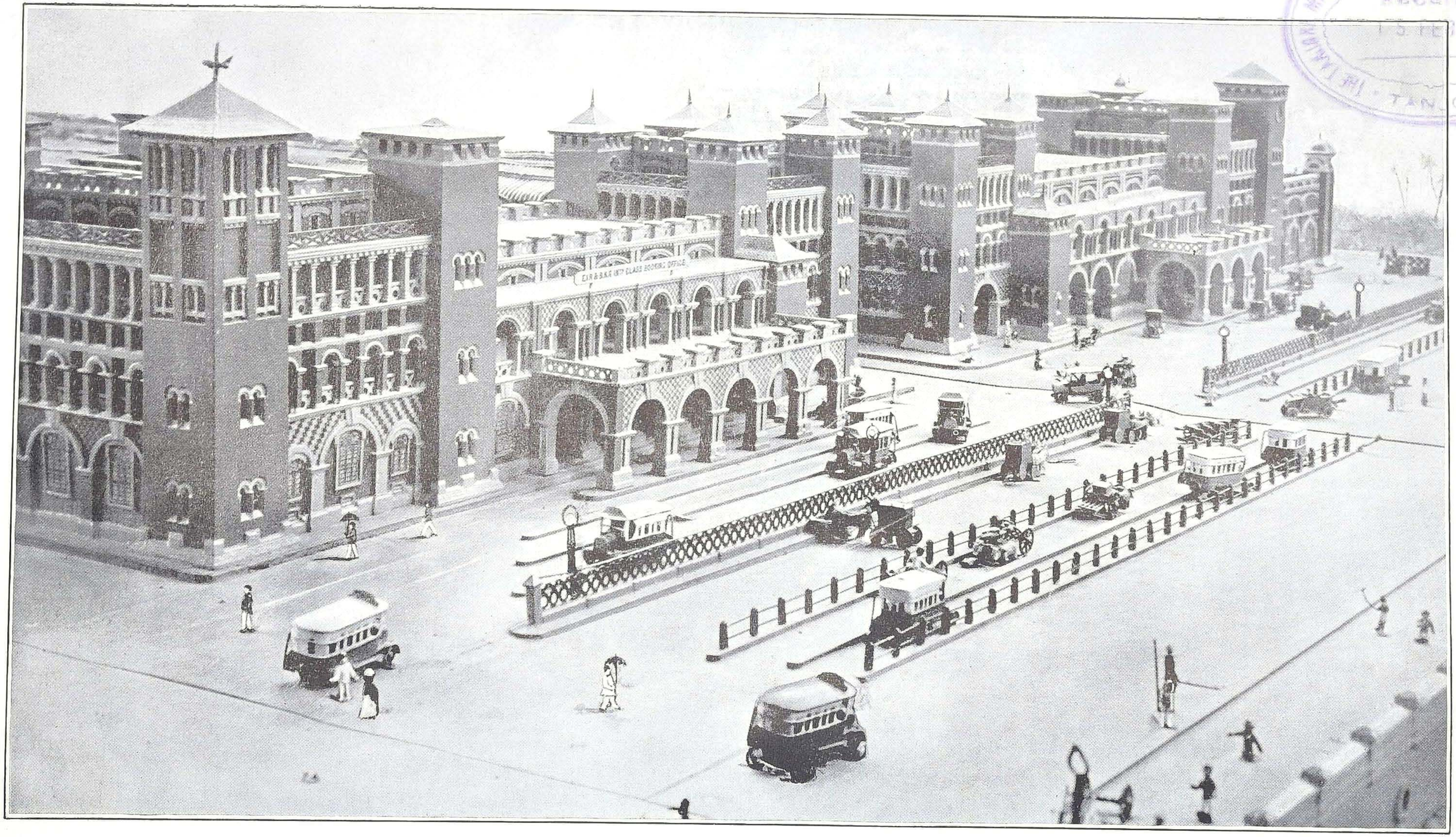
15 FEB 1938
TANJORE



Model of Howrah Station exhibited at the Lucknow Exhibition, 1936.

There was a falling off in the number of enquiries received by the New York Bureau, but the London Bureau recorded an appreciable increase and more itineraries were prepared on request than in the previous year.

Three World Cruise ships called at ports in India and their journeys over railways here increased railway revenue by Rs. 2,32,020 as compared with Rs. 1,63,285 from a similar source in the previous year.

Special propaganda on an " All-India " basis was carried out by the Central Publicity Bureau, in collaboration with railways, for the more important *melas*, by the issue of posters, folders and handbills distributed freely in areas in which traffic could reasonably be stimulated.

Photographs of interesting Indian subjects were supplied to the High Commissioner for India in London; to newspaper agencies both in India and in foreign countries for " free press publicity ".

The nature of the propaganda undertaken by individual railways generally is briefly indicated in the following paragraphs :—

Bombay, Baroda and Central India Railway.—Extensive propaganda was carried out by means of leaflets, posters and press advertisements to encourage traffic in bogie carriage loads and by special trains. As a result, 23 special trains were arranged and 38 bogie loads carried as against 13 and 35 respectively in the previous year.

Eastern Bengal Railway.—English and Bengali pictorial and letterpress posters and handbills were produced in connection with the more important *melas* and for notifying concessions.

The stock of poster boards was increased and special steps taken to improve the display of these boards and of advertisement plates.

This railway participated in eleven exhibitions held in different parts of the country.

Increased expenditure was incurred in newspaper advertising which included special illustrated accounts of the railway and its history.

The cinema cars on both the broad and metre gauges, provided with a " Talkie " set, were used with the Pujah Bazaar special, two popular Bengali films being shown in addition to the usual publicity pictures.

Lantern slides were prepared, drawing attention to the special concessions and facilities offered by the railway, and were exhibited in cinema houses in Calcutta and the mofussil.

East Indian Railway.—The expenditure on newspaper and periodical advertising, on the preparation of posters and pamphlets of varying design and on the preparation and exhibition of cinema slides was increased.

Great Indian Peninsula Railway —Most of the expenditure on publicity was incurred in connection with third class traffic, special attention being paid to *mela* and pilgrim traffic, " zone ticket " schemes and to measures taken to make railway travelling more popular.

Newspaper advertising in the vernacular press was extended, and more use made of advertising by means of slides at cinema houses.

A large number of pictorial and letterpress posters were produced in English and the vernaculars, relating to *melas*, exhibitions and holiday concessions.

Madras and Southern Mahratta Railway.—An increase in publicity expenditure was necessitated by the adoption of various methods such as the use of sandwich-men and bands, supplementing the more normal methods of publicity.

Publicity was mainly directed to attract third class passengers. Periodical feasts and festivals were advertised in the vernacular press and by notices, posters and handbills. Similar methods were adopted in connection with road services.

Elaborate publicity was also arranged in connection with the Vijayanagar Sexcentenary celebrations at Humpi, standard circular tours, mileage coupons and the introduction of accelerated goods services.

His Exalted Highness the Nizam's State Railway.—Publicity received particular attention and in certain cases was undertaken in conjunction with the Director of His Exalted Highness the Nizam's Information Bureau. Full advantage was taken of the opportunity for publicity afforded by the Departmental Progress Exhibition organised in connection with the celebration of His Exalted Highness the Nizam's Silver Jubilee.

Important publications during the year, which were made available to the public at nominal rates were brochures describing (i) the historic caves of Ajanta and Ellora, (ii) Nizamsagar Dam, lake and canal, Pocharam lake and the Church at Medak, and (iii) the ruins of Warangal fort and the sculptured temple of Ramappa. A small illustrated handbook entitled " Our Excursions " was also issued.

North Western Railway.—Newspaper advertising was extended to 57 papers and periodicals, as compared with 44 during the previous year.

The cinema car visited 157 stations and gave over 225 free shows.

With a view to advertising in villages away from the railway line, publicity schemes, cheap tickets and general facilities provided a $1\frac{1}{2}$ ton lorry with an open tray at the back was utilised to carry a cinema outfit. This innovation has been greatly appreciated. The lorry visited 83 important rural centres and gave over 100 shows.

Travel facilities for passengers disembarking at Karachi were advertised in the booking offices of tourist agents, in the Indian State Railways Magazine, and by means of passage handbooks issued by a tourist agency.

South Indian Railway.—Fairs and festivals were advertised by means of illustrated posters and leaflets and also in vernacular papers having a wide circulation. Travel facilities in the way of cheap return tickets, reduced fares on particular sections, improved train services and the opening of more train-halt places between stations were also widely advertised.

Further endeavours were made to encourage the organisation of excursion specials, small excursion parties and circular tours by pilgrims.

A Trades Exhibition Special train, organised by the Indian Trades Exhibition Company, Limited, of Bombay, ran from December, 1936, to February, 1937, over the metre gauge sections.

93. Anti-malarial measures.—During the year under review, anti-malarial measures were continued on railways with good results both for the staff and the railway Administrations.

Bengal Nagpur Railway.—Anti-malarial work was continued by the Malariologist and his staff on the various posts of the line with satisfactory results.

Bombay, Baroda and Central India Railway.—Anti-malarial measures were continued during the year over the whole line and more particularly in Freelandgunj-Dohad, Ajmer and Bombay.

The total number of primary and recrudescent cases of malaria reported amongst employees for the whole line was 7,900 and 8,900, respectively, a reduction of 3,735 and 1,186 cases as compared with 1935-36.

Eastern Bengal Railway.—There was no epidemic of malaria at any station on the railway during the year. At 14 of the stations under malaria control, anti-larval work was extended to a radius of half a mile beyond the outermost railway quarters on every side. At 14 other stations the work was confined to railway limits, the area outside being dealt with by other public bodies. Anti-parasitic measures were taken at seven stations on the newly opened Tangla-Rangapara Branch and anti-larval work was done at the Bakudih quarries.

Among the important anti-malarial measures adopted, special mention may be made of the construction of drains at Ishurdi at a cost of Rs. 20,897 and of the introduction of larvacidal fish. The policy of co-operating with various public bodies by carrying out anti-malarial work in railway areas, where the latter do so in their jurisdiction adjoining railway land, was continued.

East Indian Railway.—The results of anti-malaria measures carried out during the year were satisfactory. There was an increase in the number of cases of malaria at Lhaksar due to abnormal conditions prevailing there.

Great Indian Peninsula Railway.—The usual anti-malarial measures, with a view to systematic destruction of larvæ and prevention of breeding by regular clearing and oiling of all drains, drainage of pools of stagnant water, where possible, filling up of small pits and depression, etc., were carried out.

Madras and Southern Mahratta Railway.—Anti-malarial work has been continued satisfactorily.

APPENDIX A.

Railway Administrations in India alphabetically arranged in three classes according to their gross earnings showing the working agencies, ownership and route mileage open on 31st March 1937.

NOTE.—Indian Railway Systems have been classified under three classes for statistical purposes—
Class I—Railways with gross earnings of Rs. 50 lakhs and over a year.
Class II—Railways with gross earnings of less than Rs. 50 lakhs a year, but exceeding Rs. 10 lakhs a year.
Class III—Railways with gross earnings of Rs. 10 lakhs and under a year.

[NOTE.—Railways under construction or sanctioned for construction on the 31st March 1937, are shown in italics.]

Railway system.		Lines comprised in the system.			
Name. 1	Worked by 2	Name. 3	Gauge. 4	Route Mileage. 5	Owned by 6
CLASS I RAILWAYS.					
1. Assam Bengal . .	Assam Bengal Railway Company.	(a) Assam-Bengal .	3′ 3⅜″	1,131	State.
		(b) Chaparmukh-Silghat	3′ 3⅜″	51	Branch line Company under guarantee terms.
		(c) Katakhal-Lalabazar .	3′ 3⅜″	23	Do.
		(d) Mymensingh-Bhairab Bazar.	3′ 3⅜″	101	Branch line Company under guarantee and rebate terms.
2. Bengal and North-Western.	Bengal and North-Western Railway Company.	(a) Mashrak-Thawe .	3′ 3⅜″	39	State.
		(b) Tirhoot . . .	3′ 3⅜″	800	Do.
		(c) Bengal and North-Western.	3′ 3⅜″	1,269	Company subsidized by the Government of India*.
3. Bengal Nagpur . .	Bengal Nagpur Railway Company.	(a) Anuppur-Manendragarh.	5′ 6″	54	State.
		(b) Bengal Nagpur .	5′ 6″	2,412	Do.
		(c) Purulia-Ranchi .	2′ 6″	116	Do.
		(d) Raipur-Dhamtari .	2′ 6″	57	Do.
		(e) Satpura . . .	2′ 6″	626	Do.
		(f) Mayurbhanj . .	2′ 6″	71	Branch line Company under rebate terms.
		(g) Parlakimedi Light .	2′ 6″	56	Private body.
4. Bombay, Baroda and Central India.	Bombay, Baroda and Central India Railway Company.	(a) Bombay, Baroda and Central India.	5′ 6″	1,035	State.
		(b) Bombay, Baroda and Central India.	3′ 3⅜″	1,881	Do.
		(c) Bombay, Baroda and Central India.	2′ 6″	72	Do.
		(d) Nagda-Ujjain . .	5′ 6″	35	Indian State.
		(e) Petlad-Cambay (Anand-Tarapur Section).	5′ 6″	22	Do.
		(f) Petlad-Cambay (Tarapur-Cambay Section).	5′ 6″	12	Do.
		(g) Dhrangadra . .	3′ 3⅜″	40	Do.
		(h) Palanpur State. .	3′ 3⅜″	17	Do
		(i) Piplod-Devgad-Baria	2′ 6″	10	Do.
		(j) Rajpipla State .	2′ 6″	58	Do.
		(k) Tapti-Valley . .	5′ 6″	156	Branch line Company under rebate terms.
		(l) Ahmedabad-Parantij	3′ 3⅜″	89	Do.
		(m) Champaner-Shivrajpur-Pani Light.	2′ 6″	31	Do.
		(n) Godhra-Lunavada .	2′ 6″	25	Do.
		(o) Nadiad-Kapadvanj .	2′ 6″	28	Do.
5. Burma . . .	State . . .	Burma	3′ 3⅜″	2,060	State.

* Receives land only from Government.

Railway system.		Lines comprised in the system.			
Name. 1	Worked by 2	Name. 3	Gauge. 4	Route Mileage. 5	Owned by 6
CLASS I RAILWAYS—*contd.*					
6. Eastern Bengal	State	(*a*) Eastern Bengal	5′ 6″	847	State.
		(*b*) Eastern Bengal	3′ 3⅜″	1,039	Do.
		(*c*) Eastern Bengal	2′ 6″	17	Do.
		(*d*) Cooch Behar State	3′ 3⅜″	33	Indian State.
		(*e*) Sara-Sirajganj	5′ 6″	54	Branch line Company under rebate terms.
		(*f*) Khulna-Bagerhat	2′ 6″	20	Do.
7. East Indian	State	(*a*) East Indian	5′ 6″	4,217	State.
		(*b*) Cawnpore-Burhwal link.*	3′ 3⅜″	66	Do.
		(*c*) Hardwar-Dehra	5′ 6″	32	Branch line Company under guarantee terms.
		(*d*) South Bihar §	5′ 6″	76	Branch line Company.
8. Great Indian Peninsula.	State	(*a*) Great Indian Peninsula.	5′ 6″	3,166	State.
		(*b*) Darwha-Pusad	2′ 6″	43	Do.
		(*c*) Bhopal-Itarsi	5′ 6″	57	Jointly owned by State and Indian State.
		(*d*) Bhopal-Ujjain	5′ 6″	113	Indian State.
		(*e*) Bina-Goona-Baran	5′ 6″	147	Do.
		(*f*) Dhond-Baramati	2′ 6″	27	Branch line Company under rebate terms.
		(*g*) Ellichpur-Yeotmal	2′ 6″	118	Do.
		(*h*) Pachora-Jamner	2′ 6″	34	Do.
		(*i*) Pulgaon-Arvi	2′ 6″	22	Do.
9. Jodhpur	Indian State	(*a*) Jodhpur-Hyderabad (British Section).	3′ 3⅜″	239	State.
		(*b*) Jodhpur	3′ 3⅜″	767	Indian State.
		(*c*) Mirpur Khas-Khadro	3′ 3⅜″	49	Company subsidized by the Government of India.†
10. Madras and Southern Mahratta.	Madras and Southern Mahratta Railway Company.	(*a*) Madras and Southern Mahratta.	5′ 6″	1,119	State.
		(*b*) Madras and Southern Mahratta.	3′ 3⅜″	1,660	Do.
		(*c*) Alnavar-Dandeli (Provincial).	3′ 3⅜″	19	Do.
		(*d*) Kolar Goldfields	5′ 6″	10	Indian State.
		(*e*) Bangalore-Harihar	3′ 3⅜″	211	Do.
		(*f*) Hindupur (Yesvantpur-Mysore Frontier).	3′ 3⅜″	51	Do.
		(*g*) Kolhapur State	3′ 3⅜″	29	Do.
		(*h*) Sangli State	3′ 3⅜″	5	Do.
		(*i*) Tenali-Repalle	5′ 6″	22	District Board.
		(*j*) Bezwada-Masulipatam.	3′ 3⅜″	52	Do.
		(*k*) West of India Portuguese.	3′ 3⅜″	51	Foreign Country.
11. Nizam's State	Nizam's State Railways.	(*a*) Bezwada Extension	5′ 6″	22	State.
		(*b*) Dronachellam (Dhone)-Kurnool-British Frontier.	3′ 3⅜″	36	Do.
		(*c*) Nizam's State	5′ 6″	667	Indian State.
		(*d*) Nizam's State	3′ 3⅜″	623	Do.

* Under running power agreement, the B. and N.-W. Railway Company run and haul their trains and traffic over this line.

† Receives land only from Government.

§ Leased to the Government for a yearly sum of £30,000.

Railway system.		Lines comprised in the system.			
Name.	Worked by	Name.	Gauge.	Route Mileage.	Owned by
1	2	3	4	5	6
CLASS I RAILWAYS—*concld.*					
12. North Western	State	(*a*) North Western	5′ 6″	5,651	State.
		(*b*) Kalka-Simla	2′ 6″	60	Do.
		(*c*) Kangra-Valley	2′ 6″	103	Do.
		(*d*) Kohat-Thal	2′ 6″	62	Do.
		(*e*) Mari-Indus Kalabagh-Bannu and Laki-Pezu-Tank-Manzai.	2′ 6″	157	Do.
		(*f*) Zhob Valley (Fort Sandeman Khanai).	2′ 6″	174	Do.
		(*g*) Bahawalnagar Fort-Abbas-Kut-al-Imara	5′ 6″	152	Indian State.
		(*h*) Jammu and Kashmir (Indian State Section).	5′ 6″	16	Do.
		(*i*) Jind-Panipat (Indian State Section).	5′ 6″	26	Do.
		(*j*) Khanpur-Chachran	5′ 6″	22	Do.
		(*k*) Ludhiana-Dhuri Jakhal.	5′ 6″	78	Do.
		(*l*) Rajpura-Bhatinda	5′ 6″	108	Do.
		(*m*) Sirhind Rupar	5′ 6″	31	Do.
		(*n*) Hoshiarpur-Doab (Jullundur Mukerian).	5′ 6″	45	Branch line Company under rebate terms.
		(*o*) Hoshiarpur-Doab (Phagwara-Rahon).	5′ 6″	46	Do.
		(*p*) Mandra-Bhaun	5′ 6″	47	Do.
		(*q*) Sialkot Narowal	5′ 6″	39	Do.
		(*r*) Jacobabad-Kashmor.	2′ 6″	76	Do.
		(*s*) Larkana-Jacobabad.	2′ 6″	53	Do.
13. Rohilkund and Kumaon.	Rohilkund and Kumaon Railway Company.	(*a*) Lucknow-Bareilly	3′ 3⅜″	311	State.
		(*b*) Rohilkund and Kumaon.	3′ 3⅜″	259	Company subsidized by the Government of India.
14. South Indian	South Indian Railway Company.	(*a*) South Indian	5′ 6″	599	State.
		(*b*) South Indian	3′ 3⅜″	1,507	Do.
		(*c*) Nilgiri	3′ 3⅜″	29	Do.
		(*d*) Travancore (British Section including Shencottah-Quilon Section).	3′ 3⅜″	108	Do.
		(*e*) Morappur-Hosur	2′ 6″	73	Do.
		(*f*) Tirupattur-Krishnagiri.	2′ 6″	25	Do.
		(*g*) Shoranur-Cochin	5′ 6″	65	Indian State.
		(*h*) Travancore (Indian State Section).	3′ 3⅜″	40	Do.
		(*i*) Podanur-Pollachi	3′ 3⅜″	25	District Board.
		(*j*) Tinnevelly-Tiruchendur.	3′ 3⅜″	38	Do.
		(*k*) Peralam-Karaikkal	3′ 3⅜″	15	Foreign Country.
		(*l*) Pondicherry	3′ 3⅜″	8	Do.
CLASS II RAILWAYS.					
1. Barsi Light	Barsi Light Railway Company.	Barsi Light	2′ 6″	203	Company subsidized by the Government of India and Indian State.*
2. Bengal Dooars	Bengal-Dooars Railway Company.	(*a*) Bengal Dooars	3′ 3⅜″	40	Company subsidized by District Board.
		(*b*) Bengal Dooars Extensions.	3′ 3⅜″	121	Company subsidized by the Government of India.†
3. Bhavnagar State	Indian State	Bhavnagar State	3′ 3⅜″	307	Indian State.
4. Bikaner State	Do.	Bikaner State	3′ 3⅜″	796	Do.

* Receives land only from Government and Indian State.
† Receives land only from Government.

Railway system. Name. 1	Worked by 2	Lines comprised in the system. Name. 3	Gauge. 4	Route Mileage. 5	Owned by 6
		CLASS II RAILWAYS—*concld.*			
5. Darjeeling Himalayan	Darjeeling Himalayan Railway Company.	(a) Darjeeling Himalayan.	2′ 0″	51	Company subsidized by Local Government.
		(b) Darjeeling Himalayan Extensions.	2′ 0″	95	Branch line Company under rebate terms.
6. Dibru-Sadiya . .	Assam Railways and Trading Company.	(a) Dibru-Sadiya ‡ .	3′ 3⅜″	86	Company subsidized by Local Government.
		(b) Ledo and Tikak-Margherita Colliery.	3′ 3⅜″	5	Unassisted Company.
7. Gaekwar's Baroda State.	Indian State . .	(a) Gaekwar's Baroda State	3′ 3⅜″	255	Indian State.
		(b) Khijadiya Dhari	3′ 3⅜″	37	Do.
		(c) *Prachi Road Kodinar*	3′ 3⅜″	16	Do.
		(d) Bodeli Chhota Udaipur.	2′ 6″	23	Do.
		(e) Gaekwar's Baroda State.	2′ 6″	333	Do.
8. Gondal . . .	Do.	(a) Gondal . . .	3′ 3⅜″	119	Do.
		(b) Jetalsar-Rajkot .	3′ 3⅜″	46	Do.
		(c) Porbandar State .	3′ 3⅜″	41	Do.
9. Jaipur State . .	Do.	Jaipur State . .	3′ 3⅜″	180	Do.
10. Jamnagar and Dwarka	Jamnagar and Dwarka Railway Company.	(a) Jamnagar . .	3′ 3⅜″	54	Do.
		(b) Okhamandal . .	3′ 3⅜″	37	Do.
		(c) Jamnagar-Dwarka .	3′ 3⅜″	66	Branch line Company under guarantee and rebate terms.*
11. Junagad State . .	Indian State . .	Junagad State . .	3′ 3⅜″	211	Indian State.
12. Morvi . . .	Do.	Morvi	3′ 3⅜″	132	Do.
13. Mysore . . .	Do.	(a) Mysore . . .	3′ 3⅜″	322	Do.
		(b) Kolar District .	2′ 6″	63	Do.
		(c) Tarikere-Narasimharajapura Light.	2′ 0″	27	Do.
		(d) Bangalore-Chik-Ballapur Light.	2′ 6″	39	Company guaranteed by Indian State.
14. Shahdara (Delhi) Saharanpur Light.	Shahdara (Delhi) Saharanpur Light Railway Company.	Shahdara (Delhi) Saharanpur Light.	2′ 6″	93	Company subsidized by Local Government.†
		CLASS III RAILWAYS.			
1. Ahmadpur-Katwa .	Ahmadpur-Katwa Railway Company.	Ahmadpur-Katwa .	2′ 6″	32	Branch line Company under guarantee terms.
2. Arrah-Sasaram Light	Arrah-Sasaram Light Railway Company.	Arrah-Sasaram Light .	2′ 6″	65	Company subsidized by District Board.
3. Bankura-Damoodar River.	Bankura-Damoodar River Railway Company.	Bankura-Damodar River.	2′ 6″	60	Branch line Company under guarantee terms.
4. Baraset-Basirhat Light.	Baraset-Basirhat Railway Company.	Baraset-Basirhat Light .	2′ 6″	52	Company subsidized by District Board.
5. Bengal Provincial .	Bengal Provincial Railway Company.	(a) Bengal Provincial .	2′ 6″	33	Unassisted Company.
		(b) Dasghara-Jamalpurgunj.	2′ 6″	9	Branch line Company under guarantee terms.
6. Bukhtiarpur-Bihar Light.	Bukhtiarpur-Bihar Light Railway Company.	Bukhtiarpur-Bihar Light	2′ 6″	33	Company subsidized by District Board.
7. Burdwan-Katwa .	Burdwan-Katwa Railway Company.	Burdwan-Katwa . .	2′ 6″	32	Branch line Company under guarantee terms.
8. Cutch State .	Indian State . .	Cutch State . . .	2′ 6″	72	Indian State.

* Financed on rebate terms given by the Jamnagar Durbar.
† Receives only land from Government.
‡ Subsidy ceased with effect from 1920-21.

Railway system.		Lines comprised in the system.			
Name. 1	Worked by 2	Name. 3	Gauge. 4	Route Mileage. 5	Owned by 6
CLASS III RAILWAYS—*concld.*					
9. Dehri-Rohtas Light .	Dehri-Rohtas Light Railway Company.	Dehri-Rohtas Light .	2′ 6″	26	Company subsidized by District Board.
10. Dholpur State . .	Indian State . .	Dholpur State . .	2′ 6″	55	Indian State.
11. Futwah-Islampur .	Futwah-Islampur Light Railway Company.	Futwah-Islampur .	2′ 6″	27	Branch line Company under guarantee terms.
12. Gwalior Light . .	Indian State . .	Gwalior Light . .	2′ 0″	295	Indian State.
13. Howrah-Amta Light .	Howrah-Amta Light Railway Company.	Howrah-Amta Light .	2′ 0″	44	Company subsidized by District Board.
14. Howrah-Sheakhala Light.	Howrah-Sheakhala Light Railway Company.	Howrah-Sheakhala Light	2′ 0″	20	Do.
15. Jagadhri Light .	Jagadhri Light Railway Company.	Jagadhri Light . .	2′ 0″	3	Unassisted Company.
16. Jessore-Jhenidah† .	Jhenidah Railway Syndicate.	Jessore-Jhenidah . .	2′ 6″	37	Do.
17. Jorhat (Provincial) .	River Steam Navigation Company and India General Navigation and Railway Company.	Jorhat (Provincial) .	2′ 0″	32	State.
18. Kalighat-Falta .	Kalighat-Falta Railway Company.	Kalighat-Falta . .	2′ 6″	26	Branch line Company under guarantee terms.
19. Kulasekarapatnam Light.	East India Distilleries and Sugar Factories.	Kulasekarapatnam Light	2′ 0″	27	Unassisted Company.
20. Matheran Light .	Matheran Steam Tramway Company.	Matheran Light . .	2′ 0″	13	Company subsidized by the Government of India. *
21. Tezpore-Balipara Light.	Tezpore-Balipara Steam Tramway Company.	Tezpore-Balipara Light .	2′ 6″	20	Company subsidized by District Board.
22. Trivellore Light .	T. Namberumal Chetty and Sons.	Trivellore Light . .	2′ 0″	2	Unassisted Company.
23. Udaipur-Chitorgarh .	Indian State . .	Udaipur-Chitorgarh .	3′ 3⅜″	146	Indian State.

* Receives land and rebate from Government.
† Closed to all kinds of traffic from 1st May 1936.

APPENDIX B.

Relations of the Government to Railways in India.

(Reprinted from the Report for 1914-15 and brought up to date.)

Diversity of Relations between the State and Railways.—One of the special features of the Indian Railway system is the diversity of conditions that prevails in the relation of the State to the various lines in respect of ownership and control. Of the important lines situated in British India or in which the Government of India is interested, five [the North-Western,* Eastern Bengal, East Indian (with which has been amalgamated the Oudh and Rohilkhand Railway from the 1st July 1925), Great Indian Peninsula and Burma Railways] are owned and worked by the State; five (the Bombay, Baroda and Central India, Madras and Southern Mahratta, Assam Bengal, Bengal Nagpur and South Indian) are owned by the State but worked on its behalf by companies enjoying a guarantee of interest from the Government; two important lines (the Bengal and North-Western, and Rohilkund and Kumaon) and many of less importance are the property of private companies, some being worked by the owning companies and some by the State or by the companies that work State-owned systems; several minor lines are the property of District Boards or enjoy a guarantee of interest granted by such Boards.

The diversity of conditions is in certain respects less important than might at first appear for the following reasons:—

The Government of India exercises under the Indian Railways Act, 1890, in respect of all Railways in British India (and also, by virtue of arrangements with Indian States, in respect of certain railways passing through such States), certain general powers. Thus a railway may not be opened until a Government Inspector has certified that it has been constructed so as to comply with requirements laid down by the Government and can be used for the public carriage of passengers without danger to them. The Government of India can also, in the interest of the safety of passengers, require a railway to be closed, or the use of particular rolling-stock to be discontinued, or may prescribe conditions for the use of the railway or the rolling-stock. They can appoint a Railway Commission to investigate complaints on certain matters such as the withholding of reasonable traffic facilities or the grant of undue preference.

In addition, the Government of India (or in some cases Local Governments) exercise under the provisions of contracts detailed control over the management of all Railways in British India greatly exceeding that which is secured by the Indian Railways Act. They also have a certain financial interest in all companies in British India, and a preponderating interest in most of the railways which are of the first importance.

History of Relations of the Government and Companies.—The main causes which have led to the present diversity of conditions in regard to the agency by which railways are managed, and the relations of the Government with the various classes of companies now in existence, are summarised in the following paragraphs:—

The first proposals for the construction of railways in India were submitted in 1844 to the East India Company in England by Mr. R. M. Stephenson, afterwards Chief Engineer of the East Indian Railways, and others; they included the construction of lines by railway companies to be incorporated for the purpose and the guarantee by the East India Company of a specified return. A contract for the construction by the East Indian Railway Company of an experimental line of 100 miles from Calcutta towards Mirzapore or Rajmehal at an estimated cost of 1,000,000*l*. was made in 1849, and a return of 5 per cent. was guaranteed by the East India Company on the Capital; and a similar contract was made in the same year with the Great Indian Peninsula Railway Company for a line from Bombay to Kalyan at an estimated cost of 500,000*l*. But the policy of entrusting generally the construction of Indian railways to guaranteed companies was not adopted until 1854 on the recommendation of Lord Dalhousie, who, in a minute, dated 20th April 1853, explained his reasons for preferring the agency of companies, under the supervision and control of the Government, to the construction of lines on behalf of the Government by its own officers. He held that the State Engineer officers would make railways as well, and possibly as cheaply, and as expeditiously as companies; but that the withdrawal from other duties of the large number

* Includes the Delhi, Umballa, Kalka and Southern Punjab Railways which were purchased by the Secretary of State on 31st March 1926 and 1st January 1930 respectively.

of officers required would be detrimental to the public interest, that the conduct of commercial undertakings did not fall within the proper functions of any Government and least of all within the functions of the Government of India, since the dependence of the population on the Government was, in India, one of the greatest drawbacks to the advance of the country, and that the country would therefore benefit by the introduction of English energy and English capital for railway purposes, with the possibility that such energy and capital would in due course be encouraged to assist in the development of India in other directions.

Old Guaranteed Railways.—The policy supported by Lord Dalhousie was adopted, between 1854 and 1860. Contracts for the construction of Railways in India were made by the East India Company, or (after 1858) by the Secretary of State for India with the East Indian, Great Indian Peninsula, Madras, Bombay, Baroda and Central India, Sind (afterwards, the Sind, Punjab and Delhi), Eastern Bengal, Great Southern of India (afterwards, when amalgamated with the Carnatic Railway Company —see below—the South Indian) and Calcutta and South-Eastern Railway Companies. Under these contracts the railway companies undertook to construct and manage specified lines, while the East India Company (or the Secretary of State for India) agreed to provide land and guaranteed interest on the capital, the rate fixed being in various cases 5, $4\frac{3}{4}$ and $4\frac{1}{2}$ per cent. according to the market rates prevailing when the various contracts were made. Half of any surplus profits earned was to be used towards repaying to the Government any sums by which it had been called upon to supplement the net earnings of any previous period in order to make good the guarantee of interest; and the remainder was to belong to the shareholders. In practically all matters of importance except the choice of staff, the companies were placed by the contracts under the supervision and control of the Government which had power to decide on the standard and details of construction; the rolling-stock to be provided, the number, time and speed of trains; the rates and fares to be charged; the expenditure to be incurred; the standard of maintenance; and the form of accounts. The railways were to be held by the companies on leases terminating at the end of 99 years, and on such termination the fair value of their rolling-stock, plant and machinery was to be paid to them. But provision was also made to enable the Government to purchase the lines after 25 or 50 years on terms calculated to be the equivalent of the companies interest therein and also to enable the companies to surrender their lines to the Government and to receive in return their capital at par.

Early Attempts to Secure Funds for Railway Construction without a Guarantee.—An attempt to secure the construction of railways in India, on terms more favourable to the Government than those of the contracts with the original guaranteed companies, was first made in 1862, when a subsidy, but not a guarantee, was granted to the Indian Branch Railway Company which proposed to make feeders to the trunk lines in Northern India, and did actually make one such line. Similar assistance was granted later to the Indian Tramway Company, which made a short line in Madras. In 1864, the terms granted to the two companies mentioned were taken as a standard for general adoption with a view to the encouragement of similar companies. The chief provisions were that the Government, besides giving the necessary land free of costs, would grant an annual subsidy for 20 years at a rate not exceeding £100 per mile of line with an addition in respect of large bridges costing more than £10,000. These terms failed to attract capital, and the two unguaranteed companies which had begun work found themselves after a few years unable to proceed without further assistance from the Government. Consequently, in 1867, a contract was entered into with the Indian Branch Railway Company (which soon after changed its name to the "Oudh and Rohilkhand Railway Company") by which the company was guaranteed interest at 5 per cent. per annum on the cost of certain lines to be carried out by it, on conditions similar to those laid down in the contracts of the period 1854—1860. Similarly, the Indian Tramway Company, after having been given in 1868 a guarantee of 3 per cent. per annum, went into liquidation in 1870, and became absorbed in a new company called the Carnatic Railway Company (afterwards amalgamated with the Great Southern of India Railway Company to form the South Indian Railway Company), with which the Secretary of State entered into a contract guaranteeing interest on its capital at 5 per cent. per annum. In 1869, Sir John Lawrence summed up the result of the experiment of the construction of railways by unguaranteed companies as follows:—"The Government of India has for several years been striving to induce capitalists to undertake the construction of railways in India at their own risk, and on their responsibility with a minimum of Government interference. But the attempt has entirely failed, and it has become obvious that no capital can be obtained for such undertakings otherwise than under a guarantee of interest fully equal to that which the Government would have to pay if it borrowed directly on its own account."

The attempt to encourage unguaranteed companies having thus been unsuccessful, it became necessary to decide whether the old practice of relying on guaranteed companies, of the type that had provided capital for, and had constructed, the first railways

in India, should be continued. The Government of India expressed their objections to this course. They doubted whether their power of control over such companies secured the greatest possible economy in construction. They also disliked the arrangements under which they guaranteed the interest on the capital of companies, and thus became responsible for loss on working while having only a comparatively remote prospect of profiting by the result of successful working. Two important changes were consequently made in the practice that had been followed since the beginning of railway construction in India:—

1. Arrangements were made with some of the most important of the guaranteed companies that, in lieu of the provision that half of any surplus profits was to be applied in repayment of sums advanced by the Government under the guarantee of interest, half of the surplus profits for each half-year should be the property of the Government. In consideration of this modification, the Government relinquished, in the case of three companies, the Great Indian Peninsula, the Bombay, Baroda and Central India and the Madras, its right to purchase the lines at the end of the first 25 years from the dates of the respective contracts.
2. It was decided by the Secretary of State that the time had arrived when in both raising and expending such additional capital as might be required for new lines in India, the Government should secure to itself the full benefit of its own credit and of the cheaper methods which it was expected that it would be able to use. Accordingly, for several years after 1869, the capital expenditure on railway was chiefly incurred direct by the State and no fresh contracts with guaranteed companies were made except for small extensions. Among the lines constructed or begun by State agency and from State capital between 1869 and 1880 were the Indus Valley, Punjab Northern, Rajputana-Malwa, Northern Bengal, Rangoon and Irrawady Valley and Tirhoot.

Progress in the Construction of Railways.—By the end of 1879, in about 25 years from the introduction of railways in India, 6,128 miles of railway had been constructed by companies which had expended, approximately, £97,872,000 (these figures include the Calcutta and South-Eastern and Nalhati Railways which were constructed by companies but were purchased by the Government in 1868 and 1872, respectively). By the same date 2,175 miles of railway had been constructed by the Government at a cost of £23,695,226.

Introduction of Modified Guarantee Terms.—In 1880, the necessity for great and rapid extension of the railway system was urged by the Famine Commissioners, appointed after the great famine of 1878, who estimated that at least, 5,000 miles were still necessary for the protection of the country from famine. It was held by the Government of the time that a limit was necessary on the capital borrowed annually; and it was clear that the limit fixed was not high enough to allow of such progress in railway construction as was desirable. With reference to this difficulty the Famine Commissioner remarked: "that there would be manifest advantages in giving free scope to the extention of railways by private enterprise if it were possible; and, though the original form of guarantee has been condemned, it may not be impossible to find some substitute which shall be free from its defects, and may secure the investment of capital in these undertakings without involving the Government in financial or other liabilities of an objectionable nature."

Action in the direction suggested by the Commission was taken by the formation of three companies without a guarantee (the Bengal Central in 1881 and the Bengal and North-Western and Rohilkund and Kumaon in 1882), and three new guaranteed companies (Southern Mahratta in 1882, the Indian Midland in 1885, and the Bengal Nagpur in 1887). The Bengal and North-Western and the Rohilkund and Kumaon Railway Companies are referred to more fully, in a later paragraph. The Bengal Central Railway Company's operations were not successful at the outset, and a revised contract was entered into with the company, with effect from the 1st July 1885, under which the Secretary of State guaranteed interest at 3½ per cent. on the company's capital the balance of net earnings remaining after payment of interest on advances by the Secretary of State and debenture capital (but not the share capital) being divided between the Secretary of State and the company in the proportions of three-quarters to the former and one-quarter to the latter. The new contract gave the Secretary of State the right to take possession of the line on the 30th June 1905, or subsequently at intervals of 10 years, on repaying the company's capital at par. The rate of interest guaranteed to the Southern Mahratta Railway Company was also 3½ per cent.; in this case the balance of net earnings remaining after payment of interest on advances by the Secretary of State (but not on share or debenture capital) was divisible in the same way as in the case of the Bengal Central Railway Company. The guarantee to the Indian Midland and Bengal Nagpur Railway Companies was 4 per cent.; and the Secretary of State was entitled to three-quarters of the surplus profits in excess of all interest charges. The

lines constructed by the three companies last mentioned were declared to be the property of the Secretary of State, who had the right to determine the contracts at the end of approximately 25 years after their respective dates, or at subsequent intervals of 10 years, on repaying at par the capital provided by the companies.

The Assam Bengal Railway Company was formed on similar lines in 1892, except that any surplus profits were to be divided between the Secretary of State and the company in proportion to the capital provided by each. The rate of guarantee in this case was $3\frac{1}{2}$ per cent. for the first six years and thereafter 3 per cent.

The terms of guarantee given to the companies formed since 1880 have thus been much more favourable to the Government than in the case of those formed before 1869.

Termination of Contracts of the Old Guaranteed Companies.—In dealing with the guaranteed companies formed before 1869 and with those formed in 1881 and subsequently, it has been the practice (except in the cases mentioned above, when the purchase of some of the old guaranteed lines was postponed in order to secure to the Government a share in surplus profits) to use in some way or other at the earliest possible date the right reserved by the Government of terminating the contracts of the various companies. The method of making use of this right has differed in different cases. The Eastern Bengal, the Oudh and Rohilkhand, the Sind-Punjab and Delhi and the Southern Punjab lines were purchased and transferred to State management, the last two now forming part of the North Western Railway. Similarly, the Bengal Central line was purchased and made part of the Eastern Bengal Railway. The Madras and the Indian Midland lines were acquired but left, after acquisition, under the management of companies working other lines with which it was advantageous to amalgamate them. In the cases of South Indian, Bombay, Baroda and Central India, Southern Mahratta, and Bengal Nagpur, the course adopted has been to arrange for the continuance of management by the original company (or by a new company closely related to the old one), but to secure more favourable financial conditions for the State by one or more of the following methods:—reduction of the amount of capital retained by the companies in the undertakings, reduction of the rate of interest guaranteed by the State on such capital and modification in favour of the Government of the clauses relating to the division of surplus profits. This method was adopted also in regard to the East Indian and the Great Indian Peninsula Railways, but the contracts under which they were being worked having terminated on the 31st December 1924 and the 30th June 1925 respectively, the management of these lines has been taken over by the State from those dates. Similarly the management of the Burma Railways was taken over by the State on the termination of the contract with the Burma Railways Company on the 31st December 1928.

Arrangements between the Government and Companies at present.—The relations between the Government and the guaranteed companies now working railways may be summarised as follows:—

The lines that they work are the property of the State.

The greater part of the capital is the property of the Government, either through having been originally supplied by it or through the acquisition by the Government of the greater part of the companies' interest on the termination of old contracts.

When funds are required for further capital expenditure, the Government has the option either of providing them or of calling on the company to provide them. Both the Government and the company usually receive interest at a fixed rate on their capital and surplus profits are divided between the Government and the company in the various proportions provided for by the contracts. The company's share is in most cases only a small proportion of the total amount.

All the contracts are terminable at the option of the Secretary of State, at specified dates; and on termination the company's capital is repayable at par.

The administrative control exercised by the Government over the companies is as follows:—

The company is bound to keep the line in good repair, in good working condition, and fully supplied with rolling-stock, plant, and machinery; to keep the rolling-stock in good repair and in good working condition; and to maintain a sufficient staff for the purposes of the line;—all to the satisfaction of the Secretary of State.

The Secretary of State may require the company to carry out any alteration or improvement in the line, or in the working that he may think necessary for the safety of the public or for the effectual working of the line.

The Secretary of State may require the company to enter into agreements, on reasonable terms and conditions, with the administrations of adjoining railways for the exercise of running powers, for the supply to one another of surplus rolling-stock, for the interchange of traffic and rolling-stock and the settlement of through rates, and for additions and alterations to, or the redistribution of, existing accommodation in junctions or other stations in view to their convenient mutual use.

The train service is to be such as the Secretary of State may require. In order to secure a general control over the rates quoted by companies, the Secretary of State has retained power to settle the classification of goods and to authorise maximum and minimum rates within which the companies shall be entitled to charge the public for the conveyance of passengers and goods of each class.

The company has to keep such accounts as the Secretary of State may require, and these are subject to audit by the Secretary of State.

In all other matters relating to the line the company is made subject to the supervision and control of the Secretary of State, who may appoint such persons as he may think proper for the purpose of inspecting the line, auditing the accounts, or otherwise exercising the powers of supervision and control reserved to him. In particular, the Secretary of State has the right to appoint a Government Director to the Board of the company, with a power of veto on all proceedings of the Board. All the moneys received by the company in respect of the undertaking, whether on capital or revenue account, have to be paid over to the Secretary of State.

All expenditure by the company has to be stated and submitted for the sanction of the Secretary of State.

Thus, the Government has the preponderating financial interest in the lines worked by the two classes of guaranteed companies, those formed before 1869 and retained as working agencies with reduced capital after purchase, and those formed on terms more favourable to the State after 1880; it has exceedingly wide control over the methods of working; and it has the right of taking possession of the lines at specified times on re-payment at par of the capital of the companies.

Other Lines Worked by Companies.—In addition to the lines referred to above, and apart from lines constructed by Branch line companies, District Boards and Indian States, two lines of some importance have been constructed by companies which receive no direct assistance by the Government, namely, the Bengal and North-Western Railway and the Rohilkund and Kumaon Railway. (The Rohilkund and Kumaon Railway Company was guaranteed interest at 4 per cent. during construction and received for 10 years thereafter a subsidy of Rs. 20,000 per annum. This ceased in 1894). While, however, these companies have no guarantee or other direct payment from the Government, they derive some advantage (partly through direct participation in profits and partly through reduction of expenses) from the fact that the working of certain State lines has been entrusted to them, the Tirhoot Railway to the former company and the Lucknow-Barreilly Railway to the latter. Their lines can be purchased by the State in 1942 on terms which are different in respect of the different sections of the lines, but are, on the whole, much more favourable to the companies than those provided for in the contracts with the guaranteed companies. Failing purchase in 1942, the lines will become the property of the State in 1981 on payment of certain amounts. The general administrative control exercised by the State over these companies and the control over expenditure are similar to that which is exercised, as explained above, over guaranteed companies.

APPENDIX C.

The Organisation for Government control.

The initial policy of the Government of India for the construction and working of railways was the establishment of guaranteed railway companies of English domicile. Control over the operations of these companies was at first secured through the appointment of a Consulting Engineer of Guaranteed Railways. Some years later Local Consulting Engineers were appointed for the exercise of control over guaranteed railways and over State-owned railways in the construction of which the State had been financially interested and which had been leased to companies for working. These officers combined the duties of supervision and control on behalf of the Government of India and of an Inspector under the Government of India Railway Act. The Government of India were not directly concerned with the ownership of railways until 1868 when the Calcutta and South Eastern Railway was surrendered to the Indian Government under the terms of the contract between the Secretary of State and the Company.

Owing to the Government of India having in 1869 definitely adopted the policy of direct construction and ownership of railways, a period of rapid development of railway construction ensued and it became necessary to relieve the Public Works Department Secretariat of the Government of India in some measure of the detailed control of railways. Accordingly in 1874 a State Railway Directorate was established and the greater portion of the State Railway establishment and business connected with State Railway Administration was transferred to the control of the Director of State Railways, an officer who functioned on much the same lines as the head of a department under the Government of India. The Consulting Engineer to the Government of India for State Railways was at the same time associated with him but all important matters had still to be referred to the Public Works Department. A special Deputy Secretary in the Railway Branch of the Secretariat of the Public Works Department was also appointed to conduct the correspondence between the Government of India and these officers.

Early in 1877 a further change was made in the organisation responsible for the administration and control of State Railways and in the place of one Director of State Railways three Directors of territorial systems and one Director of State Railways Stores were appointed. These territorial divisions comprised the following systems:—

Central	1,179 miles,
Western	927 miles,
and North Eastern	830 miles.

This division of the administration on a territorial basis proved unsatisfactory in practice as it resulted in the issue of conflicting orders as far as the management of open lines was concerned although no difficulty was experienced in the supervision of new construction.

As the number of lines under construction had decreased and in order to remedy the defect just mentioned, it was decided in 1880 to abolish the Directors of the Central and Western Systems and to transfer the work allotted to them to the Consulting Engineers of the neighbouring guaranteed railways. The abolition of these two appointments resulted in an increase in the administrative work of the Secretariat and it was found necessary to raise the status of the Deputy Secretary to whom the powers previously exercised by the Directors had been entrusted, to that of Director General of Railways.

In the revised organisation the Consulting Engineer to the Government of India for State Railways was associated with the Director General of Railways and assisted the latter primarily in an advisory capacity in matters of civil engineering while the Director of Stores similarly acted in matters concerning stores and rolling-stock and at the same time was an adviser in matters affecting establishment. The Director of Traffic was appointed at the same time as an adviser on traffic problems and the accounts work of the department was placed under the Accountant General, Public Works Department.

Government control and supervision of the Guaranteed Railways continued to be exercised by the Local Consulting Engineers to Government. There were five such officers at the time with headquarters at Bombay, Madras, Calcutta, Lahore and Lucknow. The Consulting Engineers at Madras and Bombay worked directly under the Government of these presidencies, while those at Calcutta, Lahore and Lucknow were under the immediate orders of the Government of India. Under this arrangement practically all powers affecting the finances and day to day management of the

railways were vested either in the Consulting Engineers or in the Government, both for the guaranteed railway companies and later on for State Railways which had been leased for working to railway companies.

The following is a list of the administrative appointments that existed in 1881:—

1. Member of the Governor General's Council, Public Works Department.
2. Secretary, Public Works Department.
3. Deputy Secretary, Railway Branch.
4. Under-Secretary, Railway Branch.
5. Consulting Engineer of State Railways.
6. Director General of Railways.
7. Director of Construction.
8. Accountant General, Public Works Department.
9. Director of State Railways, Stores.
10. Three Assistants to the Director General of Railways.
11. Consulting Engineers for Guaranteed Railways at Calcutta, Lahore and Lucknow.
12. Deputy Consulting Engineers for Guaranteed lines, Calcutta, Lahore and Lucknow.

Madras and Bombay.

13. Joint Secretary, Railway Branch and Consulting Engineer for Railways.
14. Deputy Secretary, Public Works Department.

Punjab.

15. Secretary, Public Works Department.

By this time also Local Governments and Administrations had been induced to take a practical interest in the management of railways and in a few cases short extensions had been constructed from funds the interest of which Local Governments had accepted responsibility to pay. Such lines were controlled by the Local Governments concerned under the general supervision of the Government of India.

After 1881 further alterations of a more or less detailed character were made in the administative organisation and by 1890 the following changes had taken place. Instead of a Deputy Secretary and Under Secretary, Railway Branch, there were then only an Under Secretary and an Assistant Secretary, Railways, in the General Branch. The posts of Director of State Railways, Stores, and Director of Construction had disappeared and in their place there was an Under Secretary, who was an *ex-officio* Deputy Director General of Railways. The post of Accountant General, Railways, had also been abolished and the Accountant General, Public Works Department, was once more made responsible for this work.

Further changes were made in 1897. In that year the post of Director General of Railways was abolished and the post of a Secretary to the Government of India in the Public Works Department was created in its place. The other administrative and secretariat appointments at the headquarters of the Government of India at the time were:—

(1) Director of Railway Construction, and Deputy Secretary and *ex-officio* Director of Stores.
(2) Director of Railway Traffic, and Deputy Secretary and *ex-officio* Director of Railway Statistics.
(3) Two Under Secretaries.
(4) Two Assistant Secretaries.
(5) One Mechanical Assistant.

The post of Consulting Engineer for State Railways was also abolished and his duties transferred to the two Directors. The supervision of the accounts work of the Department, however, still remained under the Accountant General, Public Works Department, who was also an *ex-officio* Deputy Secretary to the Government of India.

In October 1901, Sir Thomas Robertson, C.V.O., was appointed by His Majesty's Secretary of State for India in Council as Special Commissioner for Indian Railways to enquire into and report on the administration and working of Indian Railways. In his report, which became available in 1903, Sir Thomas recommended that the administration of the railways in India should be entrusted to a small Board consisting of a President or Chief Commissioner who should have a thorough practical knowledge of railway working, and should be a member of the Viceroy's Council for railway

matters, and two other Commissioners who should be men of high railway standing and should have a similar training to that of the President. He recommended that the Board should, in addition to the necessary office establishment, be provided with—

(1) A Secretary who should have received a suitable training in the practical working of railways, and who should be *ex-officio* a Secretary to the Government of India.

(2) A Chief Inspector of Railways, to advise on all technical, engineering and mechanical questions.

(3) A suitable number of Government Inspectors.

Sir Thomas Robertson's recommendations were carefully considered by the Governor General in Council and the Secretary of State, and early in 1905 it was decided that the Railway Branch of the Public Works Department of the Government of India should be abolished and that the control of the railway systems in India should be transferred to a Railway Board consisting of three persons, a Chairman and two Members. The Chairman of the Board was vested with the general control of all questions committed to the Railway Board with power to act on his own responsibility subject to confirmation by the Board. The Railway Board were authorised to delegate to the Chairman or a member the power of settling questions which might arise on any tour of inspection, such decision to be recorded subsequently as an act of the Railway Board. The Board was made subordinate and directly responsible to the Government of India in the Department of Commerce and Industry.

The Railway Board assumed office in March 1905 and were provided with the following establishment:—

1. Secretary.
2. Examiner of Accounts.
3. Under Secretary, Construction.
4. Under Secretary, Traffic.
5. Registrar.
6. Director of Railway Construction.

Certain changes were, however, made in the following year and the establishment then consisted of:—

1 Secretary.

3 Assistant Secretaries; one each for Establishment, Construction and Traffic.

1 Registrar.

1 Director of Railway Construction.

1 Railway Accounts Officer.

Sir Thomas Robertson had further suggested in his detailed recommendations that extended powers, both administrative and financial, should be delegated to Boards of Directors of Companies, that the appointments of Consulting Engineers should be abolished and that the work which they performed under the Railways Act should be entrusted to a body of Government Inspectors to be appointed for the purpose. These recommendations were given effect to in a modified form in 1908.

Within a short time after the constitution of the Railway Board, it was found that work was being hampered by having the Commerce and Industry Department between the Railway Board and the Governor General in Council and in October 1908 on the recommendations of the Railway Finance Committee presided over by Sir James Mackay (now Lord Inchcape), the following changes were introduced:—

(1) The appointment of the Chairman of the Railway Board was changed into that of President of the Railway Board and enhanced powers were vested in the President.

(2) The Board with its staff became collectively the Railway Department distinct from and independent of the Department of Commerce and Industry, though remaining under the administrative charge of the Hon'ble Member, Commerce and Industry Department, as the Railway Member.

(3) The President of the Board was given direct access to the Viceroy as if he were a Secretary to the Government of India.

At the same time in consequence of the amalgamation of the Public Works Department Accounts and Civil Audit Establishments under the control of the Finance Member of the Government of India the appointment of Accountant General, Public Works Department, was abolished and the appointment of Accountant General, Railways, was revived.

In 1909 the post of Director of Railway Construction was abolished and the appointment of Chief Engineer with the Railway Board for the purpose of advising the Railway Board on technical matters connected with Civil Engineering was created.

In January 1914, it was decided that the importance of financial and commercial considerations in connection with the control of Indian railway policy justified a modification of the rule that the President and Members of the Railway Board should all be men of large experience in the actual working of railways. It was then decided that in future one member who equally with the others might be appointed President should be selected for commercial and financial experience and a member with the necessary qualifications was appointed.

This arrangement was, however, altered in 1920 when it was decided that all the three members of the Board should possess railway experience. To assist the Board, however, in the consideration of financial questions, the post of Financial Adviser to Railway Board was created.

Owing to the expansion of railways in India and the increased work thrown on the Board a second Assistant Secretary, Engineering, was appointed in 1914, and in 1916 the duties of the Construction Branch were divided between one branch dealing with Projects under an Assistant Secretary and a second branch dealing with Way and Works which was sometimes under a separate officer and at other times under the Secretary or Chief Engineer. In 1922 the charge of the Way and Works branch was divided between the Assistant Secretary in charge of Projects and the Assistant Secretary in charge of Stores.

In November 1922, the Board's establishment was strengthened by the appointment of a Chief Mechanical Engineer. This appointment was created to enable the Board to have at headquarters a reliable adviser on matters connected with mechanical engineering.

During 1921 a Committee presided over by Sir William Acworth visited India and one of the questions referred to them was the evolution of a satisfactory authority for the administration of the varied functions which the Railway Board had to perform as:—

(*a*) the directly controlling authority of the three State-worked systems aggregating 9,028 miles,

(*b*) representative of the predominant owning partner in systems aggregating 22,949 miles,

(*c*) the guarantor of many of the smaller companies,

(*d*) the statutory authority over all railways in India.

The Acworth Committee recommended in their report:—

(1) that a new Department of Communications responsible for railways, ports and inland navigation, road transport and posts and telegraphs under a Member of Council in charge of Communications should be created,

(2) that under the Member of Council for Communications there should be a technical staff consisting on the railway side of a Chief Commissioner and four Commissioners and that of the four one should be in charge of finance and the organisation and staff of the office and the other three Commissioners should be in charge of three respective divisions, Western, Eastern and Southern,

(3) that the technical staff attached to the Commission should be strengthened specially on the traffic side.

The Government of India, though they did not accept the first recommendation of the Acworth Committee, agreed to the re-organisation of the Railway Board being undertaken on the principles underlying the report of the Acworth Committee. The appointment of a Chief Commissioner was accordingly sanctioned in November 1922, and in accordance with the recommendations of the Acworth Committee he is solely responsible, under the Government of India, for arriving at decisions on technical questions and advising the Government of India on matters of Railway policy; he is not liable to be over-ruled, as the President was, by his colleagues in the Railway Board.

The first duty of the Chief Commissioner was to work out detailed proposals for the re-organisation of the Railway Board and as a first step he made recommendations to the Government of India for the immediate appointment of a Financial Commissioner. This recommendation was strongly endorsed by the Indian Retrenchment Committee and the appointment of the Financial Commissioner was made in April 1923 with the sanction of the Secretary of State. The further proposals of the Chief Commissioner for the re-organisation of the Railway Board were accepted by the Government of India and the Secretary of State and were introduced from the 1st April 1924. It was decided, however, for reasons connected with the present statutory position of the Railway Board, and to avoid confusion with the provisions for a Railway Commission under Chapter V of the Railways Act, to retain the name "Railway Board"

for the headquarters organisation of the Railway Department instead of "Railway Commission" as recommended by the Acworth Committee.

The Railway Board as then reconstituted consisted of the Chief Commissioner as President, the Financial Commissioner and two Members, the Chief Commissioner being Secretary to the Government of India in the Railway Department. The proposal of the Acworth Committee that the Indian Railways should be sub-divided into three territorial divisions with a Commissioner in charge of each was not accepted, and the work of the Members of the Board was divided on the basis of subjects and not on a territorial basis. One Member dealt with technical subjects and the other with general administration, personnel and traffic subjects, the Financial Commissioner representing the Finance Department on the Board and dealing with all financial questions.

The re-organisation carried out in 1924 had for one of its principal objects the relief of the Chief Commissioner and the Members from all but important work so as to enable them to devote their attention to larger questions of railway policy and to enable them to keep in touch with Local Governments, railway administrations and public bodies by touring to a greater extent than they had been able to do in the past. This object was effected by placing a responsible Director at the head of each of the main branches of the Board's work, namely Civil Engineering, Mechanical Engineering, Traffic and Establishment. The former Chief Engineer and the Chief Mechanical Engineer who had been employed mainly in consultative work, became Directors and together with the Directors of Traffic and Establishment have been made responsible for the direct disposal of the work of their branches under the general orders of the Railway Board.

The posts of Joint Secretary and 4 Assistant Secretaries were replaced by 6 Deputy Directors working under the Directors and in charge of branches dealing with Establishment, Works, Projects, Stores, Statistics and Traffic. One Assistant Director was also added to supervise the Technical Branch and the Drawing Office. The disposal of the general work of the Railway Board was provided for by the continuance of the post of Secretary in whose name all letters and orders of the Board are issued. The position of the Board as a Department of Government of India has been maintained and it works under the Member for Commerce and Railways. As already stated the Chief Commissioner is the Secretary to the Government of India in the Railway Department and orders issued by the Board over the signature of the Secretary are orders of the Government of India.

Experience of the working of this organisation during 1924-25 and the decision agreed to by the Legislative Assembly in September 1924 to separate railway finances from the general finances of the country made it necessary to appoint a Deputy Director and an Assistant Director of Finance. An Assistant Director of Statistics was also added during that year. Later a Director of Finance was added to the establishment occupying, as regards disposal of work, the same position as the Directors referred to above.

Further experience of the reduction of work resulting from the large delegation of powers and responsibility to the Agents of State-managed Railways and the Board of Directors of Company-managed railways enabled a re-arrangement of work to be made during 1925-26 accompanied by a reduction in the staff. Under this re-arrangement the posts of 3 Deputy Directors an Assistant Director and the Assistant Secretary were held in abeyance. The personnel work was transferred from the Director of Establishment to the Secretary and a temporary post of Deputy Secretary was created. Further a separate technical office was established to take charge of the technical work of the engineering branches. The Technical Officer also acted as *ex-officio* Secretary to the permanent Standardisation Committees which were appointed to deal progressively with all questions of standards of equipment.

This arrangement was found, however, to be inadequate. In addition to the general increase in work in the Railway Board's Office consequent on the taking over of the East Indian, Great Indian Peninsula and Burma Railways under State control labour problems had assumed such importance and were so rapidly increasing in number and complexity that it was not possible to deal with them effectively without the appointment of additional staff. Accordingly it was decided to create an additional post of Member of the Railway Board to deal with staff and labour questions; leaving the Member in charge of Traffic, who had hitherto been dealing with establishment matters, to devote his whole time to questions relating to the Transportation and Commercial aspects of Railway work.

It was also decided to revive the post of Deputy Director, Establishment, so as to free the Director of Establishment from this work, and thus enable him to give his time to the study of problems of railway labour. Of the two posts of Deputy Directors of Traffic and Statistics one was held in abeyance from 1925 and the two posts have since been amalgamated.

In October 1930 the compilation of statistical information which used previously to be done in the Board's office was entrusted to the Controller of Railway Accounts, and

with the transfer of this work, the post of Assistant Director of Statistics was also transferred from the Railway Board's office to that of the Controller of Railway Accounts.

In 1931-32, in view of the decline in traffic earnings and in the number and magnitude of Engineering works owing to financial stringency, the possibility of making temporary reductions in the organisation of the Board was explored and as a result of this examination and with the approval of the Secretary of State for India the following superior posts have been held in abeyance with effect from the dates noted below:—

Member, Traffic—29th March 1932.

Member, Engineering—5th May 1932.

Director, Civil Engineering—4th December 1931.

Director, Mechanical Engineering—1st April 1932.

Deputy Secretary—1st March 1932.

Assistant Director of Finance—31st July 1931.

It was also decided, for so long as the post of Member Traffic, was held in abeyance, to create an additional temporary post of Deputy Director, Traffic, with effect from the 1st April 1932.

The re-organisation was complete in May 1932, and then the superior staff in the office of the Railway Board consisted of the Chief Commissioner, the Financial Commissioner, 1 Member, 3 Directors, 6 Deputy Directors and 1 Secretary.

Shortly after this, however, it was recognised that unless the work was to be seriously delayed, it would be impossible for the Chief Commissioner who had taken over the duties of the Member Engineering, after that post had been held in abeyance, to devote the time that was necessary for the disposal of Civil Engineering business in the Railway Board's office and it was accordingly decided to revive the post of Director of Civil Engineering, which was being held in abeyance since December 1931, with effect from November 1932, from which date the post of Deputy Director, Civil Engineering is being held in abeyance. It was also decided in October 1932 to convert the post of Chief Superintendent to that of Assistant Secretary. The post of Director, Mechanical Engineering has been revived with effect from the 1st April 1935. As the Government of India had for some time felt the need for a whole time Member of the Railway Board devoting himself entirely to Traffic questions, such as competition with alternative means of transport, alterations in fares in order to improve net earnings, etc., the post of Member, Traffic, which was held in abeyance from 29th March 1932 has been revived with effect from the 12th October 1936 as a temporary measure but owing to increase of work in the Traffic Branch it has been decided not to abolish for the present the temporary post of Deputy Director, Traffic.

The existing superior staff in the Railway Board's office consists of the Chief Commissioner, the Financial Commissioner, 2 Members, 5 Directors, 5 Deputy Directors, 1 Secretary and 1 Assistant Secretary.

For the conduct of the work connected with the production of standard designs and specifications for all classes of materials, plant and rolling-stock in use on Indian Railways, a Central Standards Office for Railways was formed in January 1930 for a period of 5 years as an experimental measure, the post of Technical Officer with the Railway Board, being abolished at the same time. The activities of this office towards the introduction of standard designs for railways on an all-India basis having proved successful, it was made permanent in 1935 with an addition to the existing staff, to carry out more extensive technical research to enable Indian Railways to keep abreast with modern development in railway practice.

APPENDIX D.

Resolution regarding the separation of railway from General Finances, adopted by the Legislative Assembly on the 20th September 1924.

" This Assembly recommends to the Governor General in Council that in order to relieve the general budget from the violent fluctuations caused by the incorporation therein of the railway estimates and to enable railways to carry out a continuous railway policy based on the necessity of making a definite return to general revenues on the money expended by the State on Railways.

(1) The railway finances shall be separated from the general finances of the country and the general revenues shall receive a definite annual contribution from railways which shall be the first charge on the net receipts of railways.

(2) The contribution shall be based on the capital at charge and working results of commercial lines, and shall be a sum equal to one per cent. on the capital at charge of commercial lines (excluding capital contributed by companies and Indian States) at the end of the penultimate financial year *plus* one-fifth of any surplus profits remaining after payment of this fixed return, subject to the condition that, if in any year railway revenues are insufficient to provide the percentage of one per cent. on the capital at charge surplus profits in the next or subsequent years will not be deemed to have accrued for purposes of division until such deficiency has been made good.

The interest on the capital at charge of, and the loss in working, strategic lines shall be borne by general revenues and shall consequently be deducted from the contribution so calculated in order to arrive at the net amount payable from railway to general revenues each year.

(3) Any surplus remaining after this payment to general revenues shall be transferred to a railway reserve; provided that if the amount available for transfer to the railway reserve exceeds in any year three crores of rupees only two-thirds of the excess over three crores shall be transferred to the railway reserve and the remaining one-third shall accrue to general revenues.

(4) The railway reserve shall be used to secure the payment of the annual contribution to general revenues; to provide, if necessary, for arrears of depreciation and for writing down and writing off capital; and to strengthen the financial position of railways in order that the services rendered to the public may be improved and rates may be reduced.

(5) The railway administration shall be entitled, subject to such conditions as may be prescribed by the Government of India, to borrow temporarily from the capital or from the reserves for the purpose of meeting expenditure for which there is no provision or insufficient provision in the revenue budget subject to the obligation to make repayment of such borrowings out of the revenue budgets of subsequent years.

(6) A Standing Finance Committee for Railways shall be constituted consisting of one nominated official member of the Legislative Assembly who should be chairman and eleven members elected by the Legislative Assembly from their body. The members of the Standing Finance Committee for Railways shall be *ex-officio* members of the Central Advisory Council, which shall consist, in addition, of not more than one further nominated official member, six non-official members selected from a panel of eight selected by the Council of State from their body and six non-official members selected from a panel of eight elected by the Legislative Assembly from their body.

The Railway Department shall place the estimate of railway expenditure before the Standing Finance Committee for Railways on some date prior to the date for the discussion of the demand for grants for railways and shall, as far as possible, instead of the expenditure programme revenue show the expenditure under a depreciation fund created as per the new rules for charge to capital and revenue.

(7) The railway budget shall be presented to the Legislative Assembly if possible in advance of the general budget and separate days shall be allotted for its discussion, and the Member in charge of Railways shall then make a general statement on railway accounts and working. The expenditure proposed in the railway budget, including expenditure from the depreciation fund and the railway reserve, shall be placed before the Legislative Assembly in

the form of demands for grants. The form the budget shall take after separation, the detail it shall give and the number of demands for grants into which the total vote shall be divided shall be considered by the Railway Board in consultation with the proposed Standing Finance Committee for Railways with a view to the introduction of improvements in time for the next budget, if possible.

(8) These arrangements shall be subjected to periodic revision but shall be provisionally tried for at least three years.

(9) In view of the fact that the Assembly adheres to the resolution passed in February 1923, in favour of State management of Indian Railways, these arrangements shall hold good only so long as the East Indian Railway and the Great Indian Peninsula Railway and existing State-managed railways remain under State management. But if in spite of the Assembly's resolution above referred to Government should enter on any negotiations for the transfer of any of the above railways to Company management such negotiations shall not be concluded until facilities have been given for a discussion of the whole matter in the Assembly. If any contract for the transfer of any of the above railway to Company management is concluded against the advice of the Assembly, the Assembly will be at liberty to terminate the arrangements in this Resolution.

Apart from the above convention this Assembly further recommends—

(i) that the railway services should be rapidly Indianised, and further that Indians should be appointed as Members of the Railway Board as early as possible, and

(ii) that the purchases of stores for the State Railways should be undertaken through the organisation of the Stores Purchase Department of the Government of India."

APPENDIX E.

Government of India, Railway Department, Resolution No. 2131-F., dated the 19th February 1925, on the subject of the financing of branch lines of Railways.

The Governor General in Council, with the sanction of His Majesty's Secretary of State for India, is pleased to issue the following orders on the subject of financing of Branch Lines, in supersession of all previous orders on the subject.

1. Branch and Feeder Lines are constructed under an agreement by which the State guarantees a minimum return on the capital, or alternatively, undertakes that the line shall receive, out of the earnings of the main line from traffic contributed by the branch, such a sum, known as a rebate, as will make up the total earnings of the branch to a given sum, while the branch in each case shares with the main line any profits exceeding the guaranteed minimum.

2. This method of encouraging the construction of lines originated 30 years ago simply because the Government of India was unable to furnish the necessary capital.

3. The Acworth Committee pointed out that this method, while enabling lines to be built which would otherwise not have been built, has no other merit. The financial terms usual before the war are now quite inadequate and if the system is to continue they will have to be revised. All the witnesses before the Committee who asked for a revision of the terms admitted that, if the main line were in a position to build a given branch itself, they would prefer that it should be done by the main line rather than that it should be done as a separate undertaking.

4. Amongst the disadvantages pointed out by the Committee are the following:—

(i) The Branch Line Company is usually a fifth wheel to the coach. It implies in some cases a separate construction staff; it always implies a separate Board of Directors, and separate accounts.

(ii) Where the branch is worked by the main line, if its Directors feel that the management is unsatisfactory, they not only make representations to the main line administration, but in the last resort can appeal to the Railway Board which does not make for harmony.

(iii) Capital raised by a small private undertaking, even with a Government guarantee, will cost more than money raised by the State.

(iv) Inconceivable confusion results from the multiplication of independent Railway Companies—each company, small or great, desires to reserve for itself a separate sphere of influence; and jealously demands that, if any new-comer intrudes into that sphere, he shall pay toll to the original concessionaire. This only complicates a situation which ought to be considered solely from the point of view of the public interest. New proposals for the extension or connection of lines by small independent companies are either refused owing to protests by the old company or only permitted on a basis of elaborate accounting between the new company and the old for the profits which hypothetically would have belonged to the old line had the new line not been opened.

5. The only arguments urged in favour of the Branch Line Companies were:—

(i) That money had been raised which the Government of India was unable to furnish.

(ii) That a claim was made that the Branch Line Company obtained from local sources money that would never be subscribed to a Government loan.

(iii) That there may be cases of a Branch Line of smaller gauge *worked independently*, which the Branch Line Company can operate more economically than a main line.

6. The Acworth Committee, therefore, so far from approving of this system considered that the aim of the Government should be to reduce by amalgamation the number of existing companies and that it should only be in cases where the State cannot or will not provide adequate funds that private enterprise in the direction should be encouraged.

7. The disadvantages pointed out by the Acworth Committee required to be even further amplified. The existing Branch Line Companies have ceased for some time to raise additional capital for capital requirements. They have either obtained overdrafts from various Banks for this purpose at heavy rates of interest or issued debentures at special rates of interest (usually about 7 per cent.) or in several cases asked for money to be advanced to them by the Railway Board. So far, therefore, from reducing the amount

that the Government of India have to raise in the open market, they are at present increasing that amount.

8. Another serious disadvantage which is not mentioned by the Acworth Committee is that the main line usually works the Feeder or Branch Line for a remuneration which, in most cases, is limited to a maximum of a fixed percentage of the gross earnings of the Branch Line (usually 40 per cent. or 50 per cent.)—terms of remuneration which at present are grossly inadequate. The result of this arrangement is that many of the main lines whose working expenses are from 60 to 80 per cent. of the gross earnings are saddled with heavy expenditure which ought to have been debited to Branch Line Companies. Where the Branch Line Companies are "successful", that is, where the shares stand at a high figure, their profits are inflated owing to their working expenses being thus artificially reduced. Again, where in the case of less "prosperous" Branch Line Companies, the Government has to make a direct subsidy in order to make up the guaranteed interest on the capital, the amount paid by way of subsidy does not reveal the true loss of the Government in connection with the Branch Line Company. To this subsidy should be added also the additional loss incurred from the main line working the Branch Line at less than the actual cost. Even this, however, does not give a complete statement of the loss sustained by Government in connection with these Companies. These Companies have been supplied with land free of charge and the cost of such land is not taken into account either in the Capital or the Revenue Accounts of the Companies concerned.

9. The only real argument in favour of these Companies is that they must be utilised in cases where the Government itself is unable or declines to raise the necessary amount of capital for new constructions. It is doubtful whether such a position is likely to recur in the future. It is admitted that to use the agency of these Companies is a far more expensive method of raising money for the construction of railways than direct Government loans can ever be. The amount of assistance given by Branch Line Companies in the past has been trivial; the total amount of capital raised through the agency of Branch Line Companies has only been about Rs. $10\frac{3}{4}$ crores—an amount which in itself is less than the lapse that occurred last year in the provision for capital expenditure in the Railway Budget.

10. The difficulties and complications now experienced in connection with these Branch Line Companies are out of all proportion to the insignificant financial facilities offered by the Companies. The Government of India have therefore decided that the Branch line policy should be abandoned and that an endeavour should be made to reduce the number of the existing Branch Line Companies. If on any occasion the Government of India should be unable to find funds for construction (which is not the case at present), and should it be considered advisable to tap fresh sources for subscription to railway loans by offering terms different from those given to the ordinary Government loans, that is, by offering not only a fixed rate of interest, but a share in the profits of a particular Branch Line, there appears to be no particular advantage of using a financial half-way house specially to float a loan on such terms; there appears to be no reason why the Government should not float the loan direct. But it will probably be found sufficient to raise short-term debentures at a high rate of interest—to be liquidated when the loan market is favourable—a procedure adopted now by the Branch Line Companies, but at a high rate of interest than would be necessary for the Government.

11. There remains the case of the District Board Railways for which some of the capital or the security for the capital is secured by a special cess levied by the District Board throughout the district.

The Acworth Committee pointed out that where a District Board was the promoter of a new Branch Line, considerations other than purely commercial came into play with the result of further complications and confusion. In a footnote to the report they referred to the views expressed by the Madras Government who had drawn attention to a case in which, although no short-circuiting was involved, there had been a delay of over 10 years in arriving at a decision in regard to the terms for working a District Board Railway by the South Indian Railway Company. The amount of capital raised by District Boards for such lines has been only Rs. 137 lakhs while the amount raised by Company lines subsidised by District Boards amounts to Rs. $2\frac{1}{4}$ crores. These amounts are insignificant as compared with the total capital raised by the Government and it is clear that the relief afforded to the Government of India in raising the loans is quite disproportionate to the great complications which have resulted in the working of the railway administration. Loans raised direct by the District Boards do not relieve the market of the Government of India; the money is ultimately borrowed from the Government of India.

12. The legal position regarding the powers of District and Local Boards in the matter of railway construction and management depends in part on the Indian Railways Act, 1890, which, in the absence of express exclusion of its application, extends to all District Board railways and, in part on the nature of the provision made in the matter in the District or Local Boards Act of the province concerned. It is only in the Madras Presidency that the question has assumed prominence and it will suffice to

indicate briefly the nature of the provisions contained in the Madras Local Boards Act, 1920. Action under section 113 of that Act can only be taken " with the previous sanction of the Government of India ". Having obtained such sanction, a District Board may either itself construct and maintain a railway within, or partly within, the local area under the control of the Board, or may subscribe to any debenture loan raised by the Government of India or by any other local authority or by any company for the construction or maintenance of any railway which the Board considers likely to be of benefit to the district, or may guarantee the payment from the district fund of such sums as it shall think fit as interest on capital expended on any such railway (that is, whether the railway is constructed by the Government of India or by any other local authority or by a Company).

Section 236 of the same Act provides that the accumulations of a local railway cess may be utilised for all or any of the purposes specified in section 113, including the guaranteeing of payment of interest on capital spent on a railway.

A District Board in Madras, therefore, can guarantee the payment from the district fund of the money sufficient to make up minimum interest on capital expended on a railway within its area whether such railway is constructed by the Government of India or by a Company, the only disadvantage attaching to this particular form of guarantee being that the Act does not make the payment of the guaranteed interest a first charge on the District Board Fund.

13. The Government of India could not reasonably use their powers under the Indian Railways Act, 1890, or under, *e.g.*, section 113 of the Madras Local Boards Act, 1920, to prevent a District Board or a local body from constructing a light railway or a tramway which had no physical connection with any existing main line and which that local body proposed to work itself or through a local company. But as things stand at present there is no reason for continuing the practice under which District Boards are allowed to make money out of Branch Lines connected with a main line when they themselves cannot make any arrangements for the working of the lines and require to have them run by the main lines.

14. These District Board railways must not be confused with the light and feeder railways which constitute a provincial subject under the Devolution Rules. The provincial subject in question comprises " light and feeder railways and extra-municipal tramways in so far as provision for their construction and management is made by provincial legislation ". That is to say, it comprises only individual light or feeder railways or extra-municipal tramways for the construction and management of which specific provision has been made by an Act of the local legislature of the province concerned. Hitherto, no such legislation has been enacted with the result that the entry in question in the provincial schedule, as also the qualifying words to entry 5 (*a*) * in the central schedule, have no operation, and all existing railways of every description are included in the central subject defined in the last-named entry. It should also be observed that the provincial subject in question is " subject to legislation by the Indian Legislature in the case of any such railway or tramway which is in physical connection with a main line or is built on the same gauge as an adjacent line ", the effect being that a provincial bill designed to provide for the construction of a light or feeder railway or extra-municipal tramway in physical connection with a main line or built on the same gauge as an adjacent main line would require the previous sanction of the Governor General under clause (*f*) of sub-section (3) of section 80-A of the Government of India Act; and it may be presumed that few occasions are likely to arise in which provision will be made by local legislation for the construction of a light or feeder railway not answering one or other of these descriptions.

15. The proposal set forth in this Resolution is not designed to evade the legitimate operation of the legal position described, in the case of District Board railways, in paragraph 12 and in the case of provincial light and feeder railways, in paragraph 14; but it follows from the proposal that Local Governments and District or Local Boards should not, in the absence of special circumstances, be encouraged to build branch or feeder lines. In other words, the normal procedure will be the construction by the Government of India, or at its cost, by a Company, of a branch line which a District Board or Local Government desires to have constructed and is prepared to guarantee. But, should the railway programme not permit the construction of such a line within a reasonable time, the possibility of permitting a District Board or Local Government to construct it from its own funds would require consideration.

Unremunerative Lines.

16. The above proposals relate to the procedure adopted in the past and the procedure which it is proposed to adopt in the future for the financing of the construction of branch or feeder lines expected to prove remunerative from the point of view of railway earnings only. But there are cases where the Local Governments or local

* " Railways and extra-municipal tramways, in so far as they are not classified as provincial subjects under entry 6 (*d*) of Part II of this Schedule."

authorities may desire that a line should be constructed which will not be remunerative on railway earnings and the construction of which is desired by them for purely local reasons on account of the administrative advantages it is likely to confer or for the development of a particular area. It is proposed that in future the Railway Board in such circumstances should have power to arrange for the construction of the line from railway funds if the Local Government or the local authority guarantees the Railway Board against loss. The guarantee would be to the effect that the local authority would make up the difference between the net earnings and the interest and other charges payable. As it is not desirable that the Central Government should make any profit out of such contributions by local authorities; it is also proposed that where contributions have been made by a local authority for this purpose the repayment of such contributions should be a first charge on any net profit subsequently realised from the line, should the line prove remunerative.

17. The Central Government must, however, retain the power to decide whether a line is to be built or not; the proposals in the preceding paragraph must not be taken to imply that a Local Government by giving a guarantee can require the Railway Board to construct a line. Proposals of a Local Government might run counter to the general railway policy or might take the form of short-circuiting railway traffic and so lead to a reduction of receipts from existing lines.

18. These proposals have been circulated to Local Governments and have been generally welcomed by them as affording a suitable method of reconciling central and local interests and of providing for local bodies and Local Governments a method of securing the construction of railways which may be required for purely local reasons, and which, while not likely to prove remunerative on purely railway earnings, are likely to provide such indirect benefits to Local Governments and local bodies as will more than repay the amounts paid under the guarantee. Several such arrangements have already been made with Local Governments.

APPENDIX F.

I.—GAZETTED OFFICERS.

I.—*Statement of Gazetted Officers and Officers of corresponding rank employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on the 31st March 1937 as compared with 31st March 1936.*

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		BURMA.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		Rly. Board and Miscellaneous officers.		TOTAL.	
	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.†	1937.†	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1. *Agency Department*—																												
1·01. Europeans	3	2	4	4	*3	2	*8	8	4	5	4	4	5	5	5	4	5	5	6	7	2	2	4	3	2	3	*55	54
1·02. Indians—																												
(*a*) Hindus—																												
Other than Depressed classes	1	1	2	2	..	..	..	..	..	..	2	2	3	5	..	..	..	..	..	1	..	..	3	3	..	..	11	14
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*b*) Muslims	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	1
(*c*) Anglo-Indians and domiciled Europeans.	..	..	..	..	..	..	..	..	..	..	..	1	3	3	..	..	..	..	1	1	..	..	1	1	..	..	5	6
(*d*) Sikhs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*e*) Indian Christians	..	..	..	..	..	..	*1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*1	1
(*f*) Parsis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*g*) Other communities	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
(*h*) Total	1	1	2	2	..	..	*1	1	1	..	2	3	6	8	..	..	..	..	2	3	..	..	4	4	..	..	*19	22
1·03. GRAND TOTAL	4	3	6	6	*3	2	9	9	5	5	6	7	11	13	5	4	5	5	8	10	2	2	8	7	2	3	*74	76
2. *Accounts Department*—																												
2·01. Europeans	..	..	5	5	6	6	7	4	2	2	..	..	3	4	6	6	6	5	1	..	1	1	3	3	1	1	41	37
2·02. Indians—																												
(*a*) Hindus—																												
Other than Depressed classes	..	..	4	4	2	2	2	2	1	1	5	6	8	7	1	3	2	2	9	8	2	2	6	5	4	6	46	48
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*b*) Muslims	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	4	5	..	..	..	..	2	1	7	8
(*c*) Anglo-Indians and domiciled Europeans.	..	..	3	3	..	..	1	2	1	1	..	..	4	4	1	1	1	2	1	1	..	..	1	1	..	..	13	15
(*d*) Sikhs	..	..	1	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	2	2	..	..	..	..	..	..	4	4
(*e*) Indian Christians	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	2	1
(*f*) Parsis	..	..	..	..	..	..	2	2	..	..	..	..	..	..	2	1	2	2	..	..	..	..	..	..	..	..	6	5
(*g*) Other communities	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*h*) Total	..	..	8	8	2	2	6	8	2	2	7	7	12	11	4	5	5	6	16	16	2	2	8	7	6	7	78	81
2·03. GRAND TOTAL	..	..	13	13	8	8	13	12	4	4	7	7	15	15	10	11	11	11	17	16	3	3	11	10	7	8	119	118

*Revised figures.

† The figures in respect of Parsis are negligible.

APPENDIX F—*contd.*

I.—Statement of Gazetted Officers and Officers of corresponding rank employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on the 31st March 1937 as compared with 31st March 1936—contd.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		BURMA.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		Ry. Board and Miscellaneous officers.		TOTAL.	
	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.†	1937.†	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
3. *Engineering Department—*																												
3·01. Europeans	11	10	41	35	18	16	29	28	25	21	19	17	37	37	40	40	24	25	42	40	3	3	22	22	11	12	322	306
3·02 Indians—																												
(*a*) Hindus—																												
Other than Depressed classes	6	7	10	10	*5	6	16	15	4	4	13	12	31	34	8	9	17	17	47	48	..	..	14	14	2	2	*173	178
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*b*) Muslims	3	3	2	3	2	3	..	..	..	..	2	2	4	4	5	4	..	..	8	9	2	1	..	..	..	..	28	29
(*c*) Anglo-Indians and domiciled Europeans.	1	1	9	9	*2	2	1	1	2	3	1	1	3	5	..	2	1	1	8	9	..	..	..	..	1	..	*29	34
(*d*) Sikhs	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	6	1	1	..	..	..	..	7	8
(*e*) Indian Christians	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	5	2	2	2	2	..	..	1	1	..	..	11	10
(*f*) Parsis	..	..	1	1	..	..	1	1	..	..	..	..	2	2	3	3	..	..	..	..	..	..	..	..	..	..	7	7
(*g*) Other communities	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
(*h*) Total	11	12	22	23	*9	11	18	17	7	8	16	15	40	45	22	23	20	20	70	74	3	2	15	15	3	2	*256	267
3·03. GRAND TOTAL	22	22	63	58	*27	27	47	45	32	29	35	32	77	82	62	63	44	45	112	114	6	5	37	37	14	14	*578	573
4. *Transportation—*																												
4·01. Europeans	7	7	*23	21	12	9	24	23	16	16	14	14	35	29	49	49	18	16	26	25	2	3	11	9	5	5	*242	226
4·02. Indians—																												
(*a*) Hindus—																												
Other than Depressed classes	3	3	14	16	*2	3	7	7	..	..	13	13	10	13	9	9	7	7	12	11	..	..	12	12	2	2	*91	96
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*b*) Muslims	1	2	7	9	1	1	4	4	..	..	4	4	6	6	4	4	..	..	7	6	1	1	1	1	1	2	37	40
(*c*) Anglo-Indians and domiciled Europeans.	2	2	2	4	1	1	1	1	2	2	5	4	3	8	3	2	3	3	2	2	..	1	5	5	2	2	31	37
(*d*) Sikhs	..	..	1	2	..	..	1	1	..	..	..	..	1	1	..	..	2	2	4	4	..	..	..	..	..	..	9	10
(*e*) Indian Christians	..	..	1	1	..	..	2	3	..	..	..	..	1	1	..	..	1	1	1	1	..	..	..	..	..	..	6	7
(*f*) Parsis	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	*2	3
(*g*) Other communities	..	..	..	..	..	..	..	..	6	6	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	*7	7
(*h*) Total	6	7	25	32	*4	5	17	18	8	8	22	21	21	29	17	16	18	14	26	24	1	2	18	18	5	6	*183	200
4·03. GRAND TOTAL	13	14	*48	53	*16	14	41	41	24	24	36	35	56	58	66	65	31	30	52	49	3	5	29	27	10	11	425	426

* Revised figures.

† The figures in respect of Parsis are negligible.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
5. *Commercial*—																												
5·01. Europeans	1	2			1	1							6	7	12	10							2	3	..	..	22	23
5·02. Indians—																												
(*a*) Hindus—																												
Other than Depressed classes	..	..			..	..							6	3	10	11							5	5	..	..	21	19
Depressed classes	..	..			..	..							..	..	..	..							..	..	..	..	..	..
(*b*) Muslims	..	..	Included under Transportation.		1	3							1	1	1	1							..	..	..	..	3	5
(*c*) Anglo-Indians and domiciled Europeans.	..	..			..	..	Included under Transportation.						2	2	1	1	Included under Transportation.						..	..	..	..	3	3
(*d*) Sikhs	..	..			..	..							..	..	..	..							..	..	..	..	..	..
(*e*) Indian Christians	..	..			..	..							..	..	1	1							..	..	..	..	1	1
(*f*) Parsis	..	..			..	..							..	..	..	..							..	..	..	..	..	..
(*g*) Other communities	..	..			..	..							..	..	..	..							..	..	..	..	..	..
(*h*) Total	..	..			1	3							9	6	13	14							5	5	..	..	28	28
5·03. Grand Total	1	2			2	4							15	13	25	24							7	8	..	..	50	51
6. *Mechanical Engineering*—																												
6·01. Europeans	*7	6	21	21	*15	14	*28	28	20	20	15	13	33	28	20	21	18	18	45	43	2	2	16	16	3	4	*243	234
6·02. Indians—																												
(*a*) Hindus— Other than Depressed classes	2	2	5	5	..	..	5	5	..	..	7	7	15	17	3	4	5	5	6	9	..	..	5	5	..	..	53	59
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*b*) Muslims	1	1	..	..	..	..	1	1	..	..	1	1	3	4	..	..	..	..	4	4	..	..	..	..	..	..	10	11
(*c*) Anglo-Indians and domiciled Europeans.	1	1	1	1	..	..	..	..	2	2	1	2	2	8	1	1	..	..	1	1	..	..	..	..	..	..	9	16
(*d*) Sikhs	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	1	..	..	..	..	..	..	2	2
(*e*) Indian Christians	..	..	..	..	..	..	..	..	..	..	1	1	2	1	1	1	..	..	2	2	..	..	..	..	1	1	7	6
(*f*) Parsis	..	..	1	1	..	..	..	..	..	..	..	..	1	1	1	1	*1	1	..	..	..	..	..	..	..	..	*4	4
(*g*) Other communities	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*1	1
(*h*) Total	4	4	7	7	..	..	6	6	3	3	10	11	24	32	6	7	6	6	14	17	..	..	5	5	1	1	86	99
6·03. Grand Total	*11	10	28	28	*15	14	*34	34	23	23	25	24	57	60	26	28	24	24	59	60	2	2	21	21	4	5	*329	333
7. *Stores Department*—																												
7·01. Europeans	2	1	5	5	1	2	7	6	1	2	2	2	7	6	5	5	5	5	5	5	..	..	3	3	..	..	43	42
7·02. Indians—																												
(*a*) Hindus—																												
Other than Depressed classes.	..	..	2	2	..	..	1	1	..	1	2	2	4	4	..	..	2	2	3	3	..	..	1	2	..	..	15	17
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*b*) Muslims	..	..	..	..	..	..	..	1	..	..	..	..	..	..	2	2	..	..	1	1	..	..	..	..	..	..	3	4
(*c*) Anglo-Indians and domiciled Europeans.	..	..	2	2	..	..	..	..	1	1	2	3	1	2	1	1	..	..	..	..	..	..	2	1	..	..	9	10
(*d*) Sikhs	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1
(*e*) Indian Christians	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*f*) Parsis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*1	1	..	..	..	..	..	..	..	..	*1	1
(*g*) Other communities	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*..	..	..	..	..	..	..	..	..	..	*..	..
(*h*) Total	..	..	4	4	..	..	1	2	1	2	4	5	6	7	3	3	3	3	4	4	..	..	3	3	..	..	29	33
7·03. Grand Total	2	1	9	9	1	2	8	8	2	4	6	7	13	13	8	8	8	8	9	9	..	..	6	6	..	..	72	75

* Revised figures.

APPENDIX F—*contd.*

I.—*Statement of Gazetted Officers and Officers of corresponding rank employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on the 31st March 1937 as compared with 31st March 1936*—concld.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		BURMA.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		Rly. Board and Miscellaneous officers.		TOTAL.	
	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.†	1937.†	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
8. *Other Departments*—																												
8·01. Europeans	7	7	14	15	*2	2	13	13	6	5	1	1	26	23	4	4	12	10	3	3	..	..	6	4	*19	17	*113	104
8·02. Indians—																												
(*a*) Hindus—																												
Other than Depressed classes	*6	5	3	3	..	..	4	4	..	..	5	5	14	14	3	3	2	2	3	3	..	..	3	3	8	10	*51	52
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*b*) Muslims	..	1	..	..	..	..	1	1	..	..	..	..	2	2	..	..	..	..	2	2	..	..	..	..	1	2	6	8
(*c*) Anglo-Indians and domiciled Europeans.	3	2	3	3	..	..	..	..	1	2	1	1	6	5	1	3	..	..	..	..	..	..	..	..	*4	4	*19	20
(*d*) Sikhs	..	..	1	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	2	2	..	..	..	..	1	2	5	6
(*e*) Indian Christians	1	1	..	..	..	..	..	..	..	..	..	..	..	1	1	1	2	2	..	..	..	..	..	..	1	1	5	6
(*f*) Parsis	..	..	..	..	..	..	3	3	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	*4	4
(*g*) Other communities	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*h*) Total	*10	9	7	7	..	..	8	8	1	2	6	6	23	23	6	8	4	4	7	7	..	..	3	3	*15	19	*90	96
8·03. GRAND TOTAL	17	16	21	22	*2	2	21	21	7	7	7	7	49	46	10	12	16	14	10	10	..	..	9	7	34	36	*203	200
9. *Total*—																												
9·01. Europeans	*38	35	*113	106	*58	52	116	110	74	71	55	51	152	139	141	139	88	84	128	123	10	11	67	63	*41	42	*1,081	1,026
9·02. Indians—																												
(*a*) Hindus—																												
Other than Depressed classes	*18	18	40	42	*9	11	35	34	5	6	47	47	91	97	34	39	35	35	80	83	2	2	49	49	16	20	*461	483
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*b*) Muslims	5	7	9	12	4	7	7	9	..	..	7	7	16	17	12	11	..	..	27	28	3	2	1	1	4	5	95	106
(*c*) Anglo-Indians and domiciled Europeans.	7	6	20	22	*3	3	3	4	9	11	10	12	24	37	8	11	5	6	13	14	..	1	9	8	*7	6	*118	141
(*d*) Sikhs	1	1	3	4	..	..	1	1	..	..	1	1	4	4	..	..	2	2	14	15	1	1	..	..	1	2	28	31
(*e*) Indian Christians	1	1	1	1	..	..	*3	4	..	..	2	1	3	3	9	8	5	5	5	5	..	..	2	2	2	2	*33	32
(*f*) Parsis	..	..	2	2	..	..	8	8	..	..	..	..	*3	3	7	6	*4	5	..	..	..	..	..	..	..	..	*24	24
(*g*) Other communities	..	..	..	..	..	..	..	..	9	8	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	*10	9
(*h*) Total	*32	33	75	83	*16	21	*57	60	23	25	67	68	141	161	71	76	51	53	139	145	6	6	61	60	*30	35	*769	826
9·03. GRAND TOTAL	70	68	*188	189	*74	73	*173	170	97	96	122	119	293	300	212	215	139	137	267	268	16	17	128	123	71	77	*1,850	1,852
9·04. Grand Total including staff on loan from the Indian Audit and Accounts Service (Department).	70	68	*188	189	*74	73	*173	170	99	97	124	121	299	306	213	216	139	137	271	272	16	17	128	123	..	..	..	..

* Revised figures.

† The figures in respect of Parsis are negligible.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
10. *Increase (+) and Decrease (—)*																												
10·01. Europeans	..	—3	..	—7	..	—6	..	—6	..	—3	..	—4	..	—13	..	—2	..	—4	..	—5	..	+1	..	—4	..	+1	..	—55
10·02. Indians—																												
(a) Hindus—																												
Other than Depressed classes	..	..	..	+2	..	+2	..	—1	..	+1	..	..	..	+6	..	+5	..	..	..	+3	..	..	..	..	..	+4	..	+22
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Muslims	..	+2	..	+3	..	+3	..	+2	..	..	..	..	..	+1	..	—1	..	..	..	+1	..	—1	..	..	..	+1	..	+11
(c) Anglo-Indians and domiciled Europeans.	..	—1	..	+2	..	..	..	+1	..	+2	..	+2	..	+13	..	+3	..	+1	..	+1	..	+1	..	—1	..	—1	..	+23
(d) Sikhs	..	..	..	+1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	+1	..	..	..	..	..	+1	..	+3
(e) Indian Christians	..	..	..	..	..	..	..	+1	..	..	..	—1	..	..	..	—1	..	..	..	..	..	..	..	..	..	..	..	—1
(f) Parsis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—1	..	+1	..	..	..	..	..	..	..	..	..	..
(g) Other Communities	..	..	..	..	..	..	..	..	..	—1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—1
(h) Total	..	+1	..	+8	..	+5	..	+3	..	+2	..	+1	..	+20	..	+5	..	+2	..	+6	..	..	..	—1	..	+5	..	+57
10·03. GRAND TOTAL	..	—2	..	+1	..	—1	..	—3	..	—1	..	—3	..	+7	..	+3	..	—2	..	+1	..	+1	..	—5	..	+6	..	+2
11. *Percentage of Total—*																												
11·01. Europeans	*54·3	51·5	*60·1	56·1	*78·4	71·2	*67·1	64·7	76·3	74·0	45·2	43·0	51·9	46·3	66·5	64·7	63·3	61·3	47·9	45·9	62·5	64·7	52·3	51·2	57·8	54·5	*58·4	55·4
11·02. Indians—																												
(a) Hindus—																												
Other than Depressed classes	*25·7	26·4	*[illegible]1·3	22·2	*12·2	15·1	*20·2	20·0	5·1	6·3	38·7	39·7	31·1	32·4	16·0	18·1	25·2	25·5	30·0	31·0	12·5	11·7	38·3	39·8	22·5	26·0	*24·9	26·1
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Muslims	7·2	10·3	4·8	6·4	*5·4	9·6	4·1	5·2	..	..	5·6	5·8	5·5	5·7	5·7	5·1	..	..	10·1	10·4	18·8	11·8	0·8	0·8	5·6	6·5	5·1	5·7
(c) Anglo-Indians and domiciled Europeans.	10·0	8·8	10·6	11·6	*4·0	4·1	*1·7	2·3	9·3	11·4	8·1	9·9	8·2	12·3	3·8	5·1	3·6	4·4	4·9	5·2	..	5·9	7·0	6·6	9·9	7·8	*6·4	7·6
(d) Sikhs	1·4	1·5	1·6	2·1	..	..	0·6	0·8	..	..	0·8	0·8	1·3	1·3	..	..	1·4	1·5	5·2	5·6	6·2	5·9	..	..	1·4	2·6	1·5	1·7
(e) Indian Christians	1·4	1·5	0·5	0·5	..	..	*1·7	2·3	..	..	1·6	0·8	1·0	1·0	4·2	3·7	3·6	3·6	1·9	1·9	..	..	1·6	1·6	2·8	2·6	*1·8	1·7
(f) Parsis	..	..	1·1	1·1	..	..	*4·6	4·7	..	..	..	..	1·0	1·0	*3·3	2·8	*2·9	3·7	..	..	..	..	..	..	..	..	*1·3	1·3
(g) Other Communities	..	..	..	..	..	..	..	..	9·3	8·3	..	..	..	..	*0·5	0·5	..	..	..	..	..	..	..	..	..	..	*0·6	0·5

* Revised figures.

APPENDIX F—*contd.*

II.—SENIOR SUBORDINATES.

II.—*Statement of Subordinates, drawing Rs. 250 per mensem and over or on scales of pay rising to Rs. 250 per mensem and over employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on 31st March 1937 as compared with 31st March 1936.*

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		Burma.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		Total.	
	1936.	1937.	1936.†	1937.	1936.	1937.	1936.†	1937.	1936.‡	1937.‡	1936.	1937.	1936.	1937.	1936.	1937.	1936.	1937.	1936.§	1937.	1936.	1937.	1936.	1937.	1936.	1937.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1. *Agency Department*—																										
1·01. Europeans	..	..	..	..	..	..	..	..	..	..	1	2	4	1	2	..	..	..	..	..	..	..	..	..	7	3
1·02. Indians—																										
(*a*) Hindus—																										
Other than Depressed classes	..	..	6	5	1	1	10	10	4	4	12	13	10	10	3	2	3	3	} 7	7	1	..	3	3	60	58
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..
(*b*) Muslims	..	..	..	..	..	..	3	2	1	1	..	..	..	..	..	..	..	..	1	1	..	1	..	..	5	5
(*c*) Anglo-Indians and domiciled Europeans	1	1	1	..	1	1	4	3	2	2	1	..	2	4	..	2	1	1	1	1	..	..	1	1	15	16
(*d*) Sikhs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*e*) Indian Christians	..	..	..	..	..	..	2	2	1	1	..	..	..	..	3	1	..	..	2	2	..	..	..	..	8	6
(*f*) Parsis	..	..	..	..	..	..	} 3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	} 5	3
(*g*) Other communities	..	..	..	..	..	..		..	1	1	..	1	..	..	1	1	..	..	..	..	..	..	..	..		3
(*h*) Total	1	1	7	5	2	2	22	20	9	9	13	14	12	14	7	6	4	4	11	11	1	1	4	4	93	91
1·03 Grand Total	1	1	7	5	2	2	22	20	9	9	14	16	16	15	9	6	4	4	11	11	1	1	4	4	100	94
2. *Accounts Department*—																										
2·01. Europeans	..	..	..	..	..	..	4	3	..	..	..	..	8	8	6	5	..	..	..	..	..	..	..	..	18	16
2·02. Indians—																										
(*a*) Hindus—																										
Other than Depressed classes	..	..	31*	30	6	5	23	23	9	9	30	30	59	57	14	22	8	8	} 52	53	..	..	18	18	250*	255
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..
(*b*) Muslims	..	..	1	1	2	2	1	2	..	..	..	..	7	7	..	..	..	..	19	20	..	..	1	1	31	33
(*c*) Anglo-Indians and domiciled Europeans	..	..	22	20	6	6	13	15	8	7	4	4	8	8	11	11	10	8	2	2	..	..	3	3	87	84
(*d*) Sikhs	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	..	..	8	7	..	..	..	..	10	9
(*e*) Indian Christians	..	..	1*	1	1	1	1	1	1	1	..	..	..	..	3	1	..	..	1	..	..	..	..	..	8*	5
(*f*) Parsis	..	..	..	..	..	..	} 8	8	..	..	..	..	..	..	2	1	2	2	..	..	..	..	..	..	} 14	11
(*g*) Other communities	..	..	..	..	..	..		..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..		1
(*h*) Total	..	..	55*	52	15	14	46	49	18	17	34	34	75	73	33	37	20	18	82	82	..	..	22	22	400*	398
2·03. Grand Total	..	..	55*	52	15	14	50	52	18	17	34	34	83	81	39	42	20	18	82	82	..	..	22	22	418*	414

* Revised figures. † The No. of depressed classes and Parsis for 1936 not being available, are not shown separately. ‡ The figures in respect of Parsis are negligible.
§ The figures for the depressed and other than depressed classes for the year 1936 are not available separately.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
3. *Engineering Department*—																										
3·01. Europeans	..	..	4	4	1	3	10	12	1	1	5	4	32	33	22	21	7	6	16	18	1	1	3	3	102	106
3·02. Indians—																										
(a) Hindus																										
Other than Depressed classes	13	15	57*	52	5	5	65	68	24	24	37	37	100	92	57	58	22	22	101	107	..	..	10	10	491*	490
Depressed classes	..	..	..	..	..	..		1	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..		1
(b) Muslims	4	4	5	5	3	2	14	14	2	3	3	3	8	12	13	12	1	2	59	66	2	1	2	2	116	116
(c) Anglo-Indians and domiciled Europeans	6	5	33	33	14	13	7	6	29	28	18	17	94	99	55	52	23	20	47	48	1	1	10	9	337	331
(d) Sikhs	2	2	2	3	1	1	1	1	3	3	2	3	7	7	11	8	..	..	31	30	..	..	..	..	60	58
(e) Indian Christians	..	..	3*	3	..	..	5	4	3	3	1	1	7	4	12	11	1	4	3	2	..	..	1	2	36*	34
(f) Parsis	..	..	..	..	..	..	23	17	..	..	..	..	..	..	10	9	1	2	3	1	..	..	..	..	46	29
(g) Other communities	..	..	..	..	..	..		4	3	1	..	..	..	..	5	4	..	..	1	2	..	..	..	..		11
(h) Total	25	26	100*	96	23	21	115	115	64	62	61	61	216	214	163	154	48	50	245	246	3	2	23	23	1,086*	1,070
3·03. GRAND TOTAL	25	26	104*	100	24	24	125	127	65	63	66	65	248	247	185	175	55	56	261	264	4	3	26	26	1,188*	1,176
4. *Transportation*—																										
4·01. Europeans	..	..	18	18	3	3	31	31	3	4	15	20	78	76	128	131	..	..	93	86	1	..	8	7	378	376
4·02. Indians—																										
(a) Hindus—																										
Other than Depressed classes	6	6	71	74	5	4	114	104	12	13	32	34	48	61	84	84	3	5	76	78	1	1	10	9	462*	473
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2*	1	..	..		..	..	..	..	..	2*	1
(b) Muslims	..	..	10	10	1	1	7	7	1	1	1	..	9	29	18	17	1	2	34	41	..	..	1	1	83	109
(c) Anglo-Indians and domiciled Europeans	13	13	57	48	13	13	31	32	66	64	50	45	173	161	420	416	31	30	82	79	5	5	16	14	957	920
(d) Sikhs	..	..	6	6	..	..	..	..	..	..	2	2	2	2	3	1	..	..	15	18	..	..	..	..	28	29
(e) Indian Christians	..	..	3	3	..	..	17	17	2	3	1	1	1	2	58	54	..	1	6	7	..	..	..	..	88	88
(f) Parsis	..	..	..	..	..	..	39	39	..	..	..	..	..	..	16*	14	..	..	13*	14	..	..	..	..	109	67
(g) Other communities	2	2	..	..	..	..		2	18	15	..	..	1	1	16*	18	..	..	4*	3	..	..	..	..		41
(h) Total	21	21	147	141	19	18	208	201	99	96	86	82	234	256	617	605	35	38	230	240	6	6	27	24	1,729	1,728
4·03. GRAND TOTAL	21	21	165	159	22	21	239	232	102	100	101	102	312	332	745	736	35	38	323	326	7	6	35	31	2,107	2,104
5. *Commercial*—																										
5·01. Europeans	..	..			..	..							2	1	6	4			2	4			..	..	10	9
5·02. Indians—																										
(a) Hindus—																										
Other than Depressed classes	3	3			..	..							14	18	27	29			18	16			7	6	69	72
Depressed classes	..	..			..	..							..	..	..	..				..			..	..	..	..
(b) Muslims	..	..	Included under Transportation.		1	1	Included under Transportation.						2	1	3	5	Included under Transportation.		2	7	Included under Transportation.		..	..	8	14
(c) Anglo-Indians and domiciled Europeans	..	..			1	1							5	4	11	9			3	3			..	..	20	17
(d) Sikhs	..	..			..	..							..	..	..	..			6	6			..	..	6	6
(e) Indian Christians	..	..			..	..							..	..	6	5			1	1			..	..	7	6
(f) Parsis	..	..			..	..							..	..	..	..			..	..			..	..	..	..
(g) Other communities	..	..			..	..							..	..	1	2			..	..			..	..	1	2
(h) Total	3	3			2	2							21	23	48	50			30	33			7	6	111	117
5·03. GRAND TOTAL	3	3			2	2							23	24	54	54			32	37			7	6	121	126

* Revised figures.

APPENDIX F—*contd.*

II.—*Statement of Subordinates, drawing Rs. 250 per mensem and over or on scales of pay rising to Rs. 250 per mensem and over employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on 31st March 1937 as compared with 31st March 1936*—contd.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		Burma.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		Total.	
	1936.	1937.	1936.†	1937.	1936.	1937.	1936.†	1937.	1936.‡	1937.‡	1936.	1937.	1936.§	1937.	1936.	1937.	1936.	1937.	1936.§	1937.	1936.	1937.	1936.	1937.	1936.	1937.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
6. *Mechanical Engineering*—																										
6·01. Europeans	9	9	56	69	9	9	64	113	16	14	32	29	174	186	55	48	49	48	120	106	5	4	18	14	607	649
6·02. Indians—																										
(a) Hindus—																										
Other than Depressed classes	3	4	15	15	..	3	53	49	12	13	36	44	129	132	28	26	7	8	68	87	..	..	34	33	385	414
Depressed classes	..	..	..	..	..	..		4	..	..	..	..		2	..	..	..	..		..	..	..	..	..		6
(b) Muslims	1	1	4	4	..	..	9	9	1	1	3	4	19	19	2	2	..	1	61	78	..	..	1	3	101	122
(c) Anglo-Indians and domiciled Europeans	15	13	292	272	14	14	243	196	104	98	85	84	605	586	99	99	98	99	235	218	3	4	107	110	1,900	1,793
(d) Sikhs	..	1	5	5	..	..	2	2	3	4	1	1	7	7	2	2	1	1	33	40	..	..	..	..	54	63
(e) Indian Christians	..	4	3	4	..	..	12	13	2	2	1	1	2	3	12	13	..	..	15	7	..	..	5	5	52	52
(f) Parsis	..	..	4	1	..	..	35	20	..	..	..	..	2*	1	4	5	1	..	5	6	..	..	..	..	73	33
(g) Other communities	2	2		3	..	..		14	11	10	..	1	2*	2	4	2	..	..	3	10	..	..	..	..		44
(h) Total	21	25	323	304	14	17	354	307	133	128	126	135	766	752	151	149	107	109	420	446	3	4	147	151	2,565	2,527
6·03. Grand Total	30	34	379	373	23	26	418	420	149	142	158	164	940	938	206	197	156	157	540	552	8	8	165	165	3,172	3,176
7. *Stores Department*—																										
7·01. Europeans	..	..	..	..	..	..	..	..	..	..	..	..	3	3	2	2	1	1	9	5	..	..	1	1	16	12
7·02. Indians—																										
(a) Hindus—																										
Other than Depressed classes	1	1	9	10	..	..	9	9	3	2	9	11	15	15	6	6	1	2	18	18	..	..	2	2	73	76
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..
(b) Muslims	..	..	..	..	..	..	1	1	..	..	..	..	3	3	..	..	..	..	9	10	..	..	..	..	13	14
(c) Anglo-Indians and domiciled Europeans	1	1	11	11	..	..	..	..	..	..	3	2	22	22	..	..	3	2	7	9	..	..	1	1	48	48
(d) Sikhs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	3	..	..	..	..	4	3
(e) Indian Christians	..	..	2	2	..	..	2	2	..	1	..	..	..	..	1	1	..	..	1	1	..	..	..	..	6	7
(f) Parsis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	..	..	..	..	*2	2
(g) Other Communities	..	..	..	..	..	..	2	2	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	*3	3
(h) Total	2	2	22	23	..	..	14	14	3	3	12	13	40	40	9	9	4	4	40	42	..	..	3	3	149	153
7·03. Grand Total	2	2	22	23	..	..	14	14	3	3	12	13	43	43	11	11	5	5	49	47	..	..	4	4	165	165

* Revised figures.

† The No. of depressed classes and Parsis for 1936 not being available, are not shown separately.

‡ The figures in respect of Parsis are negligible.

§ The figures for the depressed and other than depressed classes for the year 1936 are not available separately.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
8. *Other Departments*—																										
8·01. Europeans	4	4	*25	28	1	2	12	11	..	..	1	1	34	35	1	1	3	2	4	3	..	..	1	1	*86	88
8·02. Indians—																										
(a) Hindus—																										
Other than Depressed classes	11	13	34	36	4	4	36	38	20	20	12	11	83	89	7	7	20	21	10	10	1	1	3	3	241	253
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..
(b) Muslims	..	..	1	1	..	..	..	..	2	2	2	2	9	10	..	..	..	..	4	3	..	..	1	1	19	19
(c) Anglo-Indians and domiciled Europeans	8	9	*46	46	8	8	16	16	4	3	2	4	81	76	4	5	15	14	6	5	..	..	4	3	*194	189
(d) Sikhs	..	..	4	4	..	..	..	..	4	4	..	..	..	..	..	..	1	1	1	2	..	..	..	..	10	11
(e) Indian Christians	..	..	1	1	..	..	2	3	5	6	..	..	2	2	2	3	2	1	3	2	..	..	*3	3	*20	21
(f) Parsis	..	..	2	2	..	..	8	7	..	..	..	..	*1	1	6	6	..	..	..	..	..	..	..	..	24	16
(g) Other Communities	..	..		..	..	1		1	6	5	..	..	..	..	1	1	..	..	..	..	..	..	..	..		8
(h) Total	19	22	*88	90	12	13	62	65	41	40	16	17	176	178	20	22	38	37	24	22	1	1	11	10	*508	517
8·03. GRAND TOTAL	23	26	113	118	13	15	74	76	41	40	17	18	210	213	21	23	41	39	28	25	1	1	12	11	594	605
9. *Railway Board and other Railway offices*—																										
9 01. Europeans	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
9·02. Indians—																										
(a) Hindus—																										
Other than Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*153	152
Depressed classes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Muslims	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	32	37
(c) Anglo-Indians and domiciled Europeans	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20	21
(d) Sikhs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13	14
(e) Indian Christians	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*6	5
(f) Parsis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(g) Other Communities	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(h) Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*224	229
9·03. GRAND TOTAL	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*226	231
1 0. ***Total***—																										
10·01. Europeans	13	13	*103	119	14	17	121	170	20	19	54	56	335	343	222	212	60	57	244	222	7	5	31	26	*1,226	1,261
10·02. Indians—																										
(a) Hindus—																										
Other than Depressed classes	37	42	223	222	21	22	310	301	84	85	168	180	458	474	226	234	64	69	350	376	3	2	87	84	*2,186	2,243
Depressed classes	..	..	..	..	..	..		5	..	..	..	..		2	2	1	..	..		..	..	..	..	..		8
(b) Muslims	5	5	21	21	7	6	35	35	7	8	9	9	57	81	36	36	2	5	189	216	2	2	6	8	408	469
(c) Anglo-Indians and domiciled Europeans	44	42	*462	430	57	56	314	268	213	202	163	156	990	960	600	594	181	174	383	365	9	10	142	141	*3,578	3,419
(d) Sikhs	2	3	17	18	1	1	3	3	10	11	5	6	17	17	17	12	2	2	98	106	..	..	..	..	185	193
(e) Indian Christians	..	4	13	14	1	1	41	42	14	17	3	3	12	11	97	89	3	6	32	22	..	..	*9	10	*231	224
(f) Parsis	..	..	6	3	..	..		94	..	..	..	..	*3	2	*39	36	4	4	*22	22	..	..	..	..	277	161
(g) Other Communities	4	4		3	..	1	118	23	39	32	..	2	*3	3	*31	30	..	..	*8	15	..	..	..	..		113
(h) Total	92	100	*742	711	87	87	821	771	367	355	348	356	1,540	1,550	1,048	1,032	256	260	1,082	1,122	14	14	244	243	*6,865	6,830
10·03. GRAND TOTAL	105	113	845	830	101	104	942	941	387	374	402	412	1,875	1,893	1,270	1,244	316	317	1,326	1,344	21	19	275	269	*8,091	8,091

* Revised figures.

APPENDIX F—*concld.*

II.—Statement of Subordinates, drawing Rs. 250 per mensem and over or on scales of pay rising to Rs. 250 per mensem and over employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on 31st March 1937 as compared with 31st March 1936—concld.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		BURMA.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		TOTAL.	
	1936.	1937.	1936.†	1937.	1936.	1937.	1936.†	1937.	1936.‡	1937.‡	1936.	1937.	1936.§	1937.	1936.	1937.	1936.	1937.	1936.§	1937.	1936.	1937.	1936.	1937.	1936.	1937.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
11. *Increase (+) Decrease (—)*																										
11·01. Europeans	..	..	..	+16	..	+3	..	+49	..	—1	..	+2	..	+8	..	—10	..	—3	..	—22	..	—2	..	—5	..	+35
11·02. Indians—																										
(a) Hindus—																										
Other than Depressed classes	..	+5	..	—1	..	+1	..	—4	..	+1	..	+12	..	+18	..	+8	..	+5	..	+26	..	—1	..	—3	..	+65
Depressed classes	..	..	..	..	..	..	..		..	..	..	..	..		..	—1	..	..	..		..	..	..	..	..	
(b) Muslims	..	..	..	..	..	—1	..	..	..	+1	..	..	..	+24	..	..	..	+3	..	+27	..	..	..	+2	..	+61
(c) Anglo-Indians and domiciled Europeans	..	—2	..	—32	..	—1	..	—46	..	—11	..	—7	..	—30	..	—6	..	—7	..	—18	..	+1	..	—1	..	—159
(d) Sikhs	..	+1	..	+1	..	..	..	..	..	+1	..	+1	..	..	..	—5	..	..	..	+8	..	..	..	..	..	+8
(e) Indian Christians	..	+4	..	+1	..	..	..	+1	..	+3	..	..	..	—1	..	—8	..	+3	..	—10	..	..	..	+1	..	—7
(f) Parsis	..	..	..	..	..	..	..	—1	..	..	..	..	..	—1	..	—3	..	..	..	..	..	..	..	..	..	—3
(g) Other Communities	..	..	..		..	+1	..		..	—7	..	+2	..	..	..	—1	..	..	..	+7	..	..	..	..	..	
(h) Total	..	+8	..	—31	..	..	..	—50	..	—12	..	+8	..	+10	..	—16	..	+4	..	+40	..	..	..	—1	..	—35
11·03. GRAND TOTAL	..	+8	..	—15	..	+3	..	—1	..	—13	..	+10	..	+18	..	—26	..	+1	..	+18	..	—2	..	—6	..	..
12. *Percentage of total—*																										
12·01. Europeans	12·4	11·5	*12·2	14·3	13·9	16·3	12·9	18·1	5·2	5·1	13·4	13·6	17·9	18·1	17·5	17·0	19·0	18·0	18·4	16·5	33·3	26·3	11·3	9·7	15·2	15·6
12·02. Indians—																										
(a) Hindus—																										
Other than Depressed classes	35·2	37·1	26·4	26·7	20·8	21·1	32·9	32·0	21·7	22·7	41·8	43·7	24·4	25·0	17·8	18·8	20·2	21·8	26·4	28·0	14·3	10·5	31·6	31·2	27·0	27·7
Depressed classes	..	..	..	..	..	..		0·5	..	..	..	..		0·1	0·2	0·1	..			..	..	..	..	..		0·1
(b) Muslims	4·8	4·5	2·5	2·5	6·9	5·8	3·7	3·7	1·8	2·1	2·3	2·2	3·1	4·3	2·8	2·9	0·6	1·5	14·3	16·1	9·5	10·5	2·2	3·0	5·0	5·8
(c) Anglo-Indians and domiciled Europeans	41·9	37·2	*54·7	51·8	56·4	53·8	33·3	28·5	55·0	54·0	40·5	37·9	52·8	50·7	47·3	47·8	57·3	54·9	28·9	27·1	42·9	52·7	51·6	52·4	44·2	42·2
(d) Sikhs	1·9	2·7	2·0	2·2	1·0	1·0	0·3	0·3	2·6	2·9	1·2	1·4	0·9	0·9	1·3	1·0	0·6	0·6	7·4	7·9	..	..	..	..	2·3	2·4
(e) Indian Christians	..	3·5	1·5	1·7	1·0	1·0	4·4	4·5	3·6	4·6	0·8	0·7	0·6	0·6	7·6	7·1	1·0	1·9	2·4	1·6	..	..	*3·3	3·7	*2·9	2·8
(f) Parsis	..	..	0·7	0·4	..	..	12·5	10·0	..	..	..	..	0·3	0·1	3·1	2·9	1·3	1·3	1·6	1·7	..	..	..	..	*3·4	2·0
(g) Other Communities	3·8	3·5		0·4	..	1·0		2·4	10·1	8·6	..	0·5		0·2	2·4	2·4	..	..	0·6	1·1	..	..	..	..		1·4

* Revised figures.
† The No. of depressed classes and Parsis for 1936 not being available, are not shown separately.
‡ The figures in respect of Parsis are negligible.
§ The figures for the depressed and other than depressed classes for the year 1936 are not available separately.

APPENDIX G.

Statement showing the number of appointments made to the Superior Services on State Railways and of corresponding rank on Companies' Railways (Class I) excluding H. E. H. the Nizam's State and Jodhpur Railways during 1936-37.

Departments.	No. of vacancies actually filled.	Filled by: Europeans.	Filled by: Indians: Hindus.	Muslims.	Anglo-Indians and Domiciled Europeans.	Sikhs.	Indian Christians.	Parsis.	Other classes.	Total.
1	2	3	4	5	6	7	8	9	10	11
STATE-MANAGED RAILWAYS.										
1. Agency	..	..	..	..	..	..	..	..	..	..
2. Accounts	3	..	2	..	..	..	1	..	..	3
3. Engineering	4	1	2	..	1	..	..	..	..	3
4. Transportation (Traffic) and Commercial.	9	2	3	2	1	1	..	..	..	7
5. Transportation (Power) and Mechanical Engineering.	7	..	4	..	2	1	..	..	..	7
6. Stores Department	..	..	..	..	..	..	..	..	..	..
7. Other Departments	3	..	1	..	..	1	1	..	..	3
8. TOTAL—										
1936-37	26	3	12	2	4	3	2	..	..	23
1935-36	32	3	18	7	2	1	1	..	..	29
9. Percentage of Europeans to number of vacancies filled—										
1936-37	11·5	..	..	..	..	..	..	..	..	..
1935-36	9·4	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled—										
1936-37	88·5	..	..	..	..	..	..	..	..	..
1935-36	90·6	..	..	..	..	..	..	..	..	..
OTHER RAILWAYS.										
Assam Bengal Railway.										
1. Agency	..	..	..	..	..	..	..	..	..	..
2. Accounts	..	..	..	..	..	..	..	..	..	..
3. Engineering	2	..	2	..	..	..	..	..	..	2
4. Transportation and Commercial	2	1	..	1	..	..	..	..	..	1
5. Mechanical	..	..	..	..	..	..	..	..	..	..
6. Stores	..	..	..	..	..	..	..	..	..	..
7. Other Departments	1	..	..	1	..	..	..	..	..	1
8. TOTAL—										
1936-37	5	1	2	2	..	..	..	..	..	4
1935-36	9	4	4	..	..	..	1	..	..	5
9. Percentage of Europeans to number of vacancies filled—										
1936-37	20·0	..	..	..	..	..	..	..	..	..
1935-36	44·4	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled—										
1936-37	80·0	..	..	..	..	..	..	..	..	..
1935-36	55·6	..	..	..	..	..	..	..	..	..

APPENDIX G—*contd.*

Statement showing the number of appointments made to the Superior Services on State Railways and of corresponding rank on Companies' Railways (Class I) excluding H. E. H. the Nizam's State and Jodhpur Railways during 1936-37—contd.

Departments.	No. of vacancies actually filled.	FILLED BY								
		Europeans.	INDIANS.							
			Hindus.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Parsis	Other classes.	Total.
1	2	3	4	5	6	7	8	9	10	11
Bengal and North-Western Railway.										
1. Agency	..	..	..	..	..	..	..	..	..	..
2. Accounts	..	..	..	..	..	..	..	..	..	..
3. Engineering	1	..	..	..	..	1	..	..	..	1
4. Transportation and Commercial	4	1	1	2	..	..	..	..	..	3
5. Mechanical	..	..	..	..	..	..	..	..	..	..
6. Stores	1	1	..	..	..	..	..	..	..	..
7. Other Departments	..	..	..	..	..	..	..	..	..	..
8. TOTAL— 1936-37	6	2	1	2	..	1	..	..	..	4
1935-36	3	1	2	..	..	..	..	..	..	2
9. Percentage of Europeans to number of vacancies filled— 1936-37	33·3	..	..	..	..	..	..	..	..	..
1935-36	33·3	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled— 1936-37	66·7	..	..	..	..	..	..	..	..	..
1935-36	66·7	..	..	..	..	..	..	..	..	..
Bengal Nagpur Railway.										
1. Agency	..	..	..	..	..	..	..	..	..	..
2. Accounts	2	2	..	..	..	..	..	..	..	..
3. Engineering	1	..	..	1	..	..	..	..	..	1
4. Transportation and Commercial	7	2	2	2	..	1	..	..	..	5
5. Mechanical	1	1	..	..	..	..	..	..	..	..
6. Stores	..	..	..	..	..	..	..	..	..	..
7. Other Departments	..	..	..	..	..	..	..	..	..	..
8. TOTAL— 1936-37	11	5	2	3	..	1	..	..	..	6
1935-36	7	1	2	1	2	1	..	..	..	6
9. Percentage of Europeans to number of vacancies filled— 1936-37	45·45	..	..	..	..	..	..	..	..	..
1935-36	14·3	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled 1936-37	54·55	..	..	..	..	..	..	..	..	..
1935-36	85·7	..	..	..	..	..	..	..	..	..
Bombay, Baroda and Central India Railway										
1. Agency	1	1	..	..	..	..	..	..	..	..
2. Accounts	2	..	..	1	1	..	..	..	..	2
3. Engineering	2	..	1	..	..	..	..	1	..	2
4. Transportation and Commercial	1	..	..	..	..	..	1	..	..	1
5. Mechanical	3	3	..	..	..	..	..	..	..	..
6. Stores	1	..	..	1	..	..	..	..	..	1
7. Other Departments	1	..	..	..	..	..	..	1	..	1
8. TOTAL— 1936-37	11	4	1	2	1	..	1	2	..	7
1935-36	10	1	4	2	1	..	1	..	1	9
9. Percentage of Europeans to number of vacancies filled— 1936-37	36·4	..	..	..	..	..	..	..	..	..
1935-36	10·0	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled— 1936-37	63·6	..	..	..	..	..	..	..	..	..
1935-36	90·0	..	..	..	..	..	..	..	..	..

APPENDIX G—*concld.*

Statement showing the number of appointments made to the Superior Services on State Railways and of corresponding rank on Companies' Railways (Class I) excluding H. E. H. the Nizam's State and Jodhpur Railways during 1936-37—concld.

Departments.	No. of vacancies actually filled.	FILLED BY								
		Europeans.	Indians.							
			Hindus.	Muslims.	Anglo-Indians and Domiciled Europeans.	Sikhs.	Indian Christians.	Parsis.	Other classes.	Total.
1	2	3	4	5	6	7	8	9	10	11
Madras and Southern Mahratta Railway.										
1. Agency	..	..	..	..	..	..	..	..	..	..
2. Accounts	1	..	..	..	1	..	..	..	..	1
3. Engineering	2	1	..	..	..	..	1	..	..	1
4. Transportation and Commercial	1	..	..	..	..	..	..	1	..	1
5. Mechanical	..	..	..	..	..	..	..	..	..	..
6. Stores	..	..	..	..	..	..	..	..	..	..
7. Other Departments	..	..	..	..	..	..	..	..	..	..
8. Total— 1936-37	4	1	..	..	1	..	1	1	..	3
1935-36	3	..	3	..	..	..	..	..	..	3
9. Percentage of Europeans to number of vacancies filled— 1936-37	25·0	..	..	..	..	..	..	..	..	..
1935-36	0·00	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled— 1936-37	75·0	..	..	..	..	..	..	..	..	..
1935-36	100·0	..	..	..	..	..	..	..	..	..
Rohilkund and Kumaon Railway.										
1. Agency	..	..	..	..	..	..	..	..	..	..
2. Accounts	..	..	..	..	..	..	..	..	..	..
3. Engineering	..	..	..	..	..	..	..	..	..	..
4. Transportation and Commercial	1	1	..	..	..	..	..	..	..	..
5. Mechanical	..	..	..	..	..	..	..	..	..	..
6. Stores	..	..	..	..	..	..	..	..	..	..
7. Other Departments	..	..	..	..	..	..	..	..	..	..
8. Total— 1936-37	1	1	..	..	..	..	..	..	..	..
1935-36	3	1	..	..	1	1	..	..	..	2
9. Percentage of Europeans to number of vacancies filled— 1936-37	100·0	..	..	..	..	..	..	..	..	..
1935-36	33·3	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled— 1936-37	0·00	..	..	..	..	..	..	..	..	..
1935-36	66·7	..	..	..	..	..	..	..	..	..
South Indian Railway.										
1. Agency	..	..	..	..	..	..	..	..	..	..
2. Accounts	1	..	..	1	..	..	..	..	..	1
3. Engineering	..	..	..	..	..	..	..	..	..	..
4. Transportation and Commercial	1	1	..	..	..	..	..	..	..	..
5. Mechanical	..	..	..	..	..	..	..	..	..	..
6. Stores	1	..	1	..	..	..	..	..	..	1
7. Other Departments	..	..	..	..	..	..	..	..	..	..
8. Total— 1936-37	3	1	1	1	..	..	..	..	..	2
1935-36	6	1	4	1	..	..	..	..	..	5
9. Percentage of Europeans to number of vacancies filled— 1936-37	33.3	..	..	..	..	..	..	..	..	..
1935-36	16·7	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled— 1936-37	66·7	..	..	..	..	..	..	..	..	..
1935-36	83·3	..	..	..	..	..	..	..	..	..

APPENDIX H.

Officers of the Railway Department (Railway Board) and attached offices on 31st March 1937.

The Hon'ble Sir MUHAMMAD ZAFRULLA KHAN, Bar.-at-Law,
Member of Council of the Governor-General.

Railway Board.

The Hon'ble Sir Guthrie Russell . .	Chief Commissioner of Railways.
Sir Raghavendra Rau	Financial Commissioner of Railways.
Mr. A. E. Tylden-Pattenson . . .	Member (Temporary).
Mr. J. C. Highet, F.C.H., A.M.I.C.E. .	Member (*Offg.*).
Col. H. L. Woodhouse, M.C. . . .	Director, Civil Engineering (On leave).
Mr. J. Mackinnon	Director, Civil Engineering (*Offg.*).
Mr. T. S. Sankara Aiyar, B.A., B.E. .	Director of Finance.
Diwan Bahadur Mathra Das . . .	Director of Establishment.
Mr. F. D'Souza	Director of Traffic.
Mr. E. Ingoldby, A.M.I.C.E., M.I.L.E.	Director of Mechanical Engineering.
Mr. B. Moody, M. A., V. D., M.I.T. .	Secretary.
Mr. Yaqub Shah	Deputy Director, Finance (*Offg.*).
Khan Bahadur Z. H. Khan . . .	Deputy Director, Establishment (I).
Mr. F. M. Khan	Deputy Director, Establishment (II) (Temporary).
Mr. H. M. Jagtiani	Deputy Director, Traffic (Commercial) (*Offg.*).
Mr. R. C. Paranjoti, B.A., B.E., B.Sc. (ENG.) (LOND.), A.M.I.L.E. . .	Deputy Director, Mechanical Engineering.
Mr. J. W. C. Holt	Deputy Director, Traffic (Transportation) (*Offg.*).
Mr. K. Ubaidullah	Assistant Director, Finance (Temporary).
Mr. E. C. Rundlett	Assistant Secretary.

Attached Officers.

Mr. C. W. Scott, O.B.E., D.F.C., B.Sc., I.F.S.	Joint Timber Advisory Officer, Railway and Defence Departments.
Mr. R. F. Mudie, C.I.E., C.B.E., I.C.S., J.P.	Officer on Special Duty.
Mr. K. C. Srinivasan	Officer on Special Duty.

Attached Offices.

Lt.-Col. H. W. Wagstaff, M.C., R.E. .	Supervisor of Railway Labour.

Central Standards Office for Railways.

Mr. J. M. D. Wrench, C.I.E. . .	Chief Controller of Standardization.
Mr. L. H. Swain	Deputy Chief Controller (Civil).
Mr. R. C. Case	Deputy Chief Controller (Mechanical).
Mr. W. A. Nightingale . . .	Assistant Chief Controller (Mechanical).
Mr. W. Douglas Thomson . . .	Assistant Chief Controller (Civil).
Mr. A. Vasudevan	Assistant Chief Controller (Specifications and Records).
Mr. W. E. Gelson	Officer on Special Duty.
Mr. E. A. Blackwood	Officer on Special Duty.

Central Publicity Bureau.

Mr. G. T. Tait, B.Sc. . . . . Central Publicity Officer.
Mr. P. W. Sullivan . . . . Assistant Publicity Officer.

Overseas Bureaux.

Mr. V. L. Dean . . . . . Resident Manager, Indian Railways Bureau, New York, U. S. A.
Mr. V. P. Bhandarkar . . . . Manager, Indian Railways Bureau, London.

Office of the Controller of Railway Accounts.

Mr. V. S. Sundaram . . . . Controller of Railway Accounts.
Mr. Rangbihari Lal . . . . Deputy Controller of Railway Accounts.
Mr. P. N. Bose . . . . . Assistant Accounts Officer (*Offg.*).

MGIPC—L—X-43(PD)—31-12-37--980.

INDIA
SHOWING RAILWAYS
Open and under construction on 31st. March
1937.
Scale 1/4,250,000 or 67·08 Miles to 1 Inch
Miles 50 40 30 20 10 0 50 100 150 200 Miles
5·6" Gauge, open, electrified ... single – double
5·6" Gauge, do ... two or more lines
Do ... do ... do ... single line
Do ... do ... Sanctioned or under construction
3·3⅜ do ... open ... double line
Do ... do ... do ... single line
Do ... do ... Sanctioned or under construction
2·6 & 2 Gauges, open ... single line
2·6 & 2 Gauges ... Sanctioned or under construction
5·6 Gauge & 3·3⅜ Gauge mixed, open, double, Home-Foreign
Do ... do ... do ... do ... do ... do. single ... do ... do
3·3⅜ Gauge & 2·6 ... do ... do ... do ... do ... do ... do
Areas of the Indian States directly under the Govt. of India
" " " " under the Provincial Governments are shown in the same colour as the Province to which they pertain but with a yellow edging thus.
This map has been issued in connection with the Alphabetical List of Railway Stations issued by the Indian Railway Conference Association.
Published under the direction of Brigadier H. J. Couchman, D.S.O., M.C., Surveyor General of India, 1937.
COAL FIELDS
DELHI
CAWNPORE JN.
BOMBAY
AGRA
PART OF B.B.& C.I.RY.
MADRAS
RAILWAYS SERVING CALCUTTA & SUBURBS
RANGOON
ARABIAN SEA
BAY OF BENGAL
KASHMIR AND JAMMU
BURMA
NEPAL
BHUTAN
BALUCHISTAN
AFGHANISTAN
CENTRAL INDIA AGENCY
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